

THE UNIVERSITY OF ALBERTA

A CRITICAL ANALYSIS OF A PLANNED COMMUNITY-
VÄLLINGBY, SWEDEN



by
M. ANITA BERGMAN RUSAK

A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF ARTS

DEPARTMENT OF GEOGRAPHY

EDMONTON, ALBERTA

October, 1968

Thesis
1968 (F)
188

THE UNIVERSITY OF ALBERTA
FACULTY OF GRADUATE STUDIES

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled A Critical Analysis of a Planned Community - Vällingby, Sweden, submitted by M. Anita Bergman Rusak in partial fulfilment of the requirements for the degree of Master of Arts.

ABSTRACT

This study concerns a planned community, Vällingby, in the outskirts of Stockholm, Sweden. Vällingby has become known internationally as a well-planned community and this study focuses on an examination of the original plans and principles as compared to actual development thirteen years after the adoption of the General Plan. The study is mainly based on the following type of data: (1) interviews with planners and other officials in Stockholm, (2) interviews with customers and industrialists at Vällingby, (3) archive material from the Stockholm City Planning Department and the construction firm of the Vällingby development, (4) official statistics, and (5) the City Council proceedings as pertain to Vällingby.

The document officially referred to as the General Plan for South Spånga, which includes Vällingby, is exceedingly brief and sketchy and could more properly be described as a supplement to the Stockholm General Plan of 1952. Vällingby has been developed with a diversified community center which has been economically successful and which now serves an umland of close to 90,000 inhabitants. From a physical point of view, the community has been laid out in accordance with the original plans, but from a functional

point-of-view, the results are not as impressive. Dissatisfaction with housing is widespread, the planning of schools has been found unco-ordinated and unsatisfactory. Furthermore, unforeseen large-scale commuting has given Vällingby more of a suburban character than planned. The phrase "satellite town" has erroneously been given to the community which in effect is only a partially self-contained suburban area within Stockholm.

ACKNOWLEDGEMENTS

I am grateful to Dr. P. J. Smith who supervised my work and I thank him for his encouragement and constructive criticism of this thesis.

My thanks are also extended to all those persons in Stockholm who helped in supplying information and advice. Appreciation is expressed to Professor J. J. Klawe for advice on cartographic presentation, Mr. Jack Chesterman for map reproduction, and Mrs. Eileen Malcolm for the competent typing.

Financial assistance for the field work was obtained from the University of Alberta in the form of an intersession bursary.

CONTENTS

	<u>Page</u>
ABSTRACT	iii
ACKNOWLEDGEMENTS	v
CONTENTS	vi
FIGURES	viii
TABLES	ix
PLATES	xi
INTRODUCTION	xii

PART I - ORIGINAL PRINCIPLES AND PLANS FOR VÄLLINGBY

CHAPTER

1	The Growth and Development Problems of Stockholm	2
	Population Growth	2
	Housing Needs	4
	The Dispersed City Concept	8
2	Vällingby in a Metropolitan Framework	12
	History of Vällingby	12
	Early Development Proposals	14
	General Plan for South Spånga, 1949-1952	15
	Proposed Functional Interaction between Stockholm and Vällingby	17
3	Original Principles and Plans for Vällingby	25
	Site Description	25
	The General Structure of Vällingby	27
	Population Base	32
	Community Center	37
	Residential Development	42
	Industrial Areas	44
	Proximity between Work-Place and Residence	47
	Education	50
	Outdoor Recreational Plans	53

PART II - IMPLEMENTATION OF THE 1952 PLAN, AND MODIFICATIONS TO AND DEPARTURES FROM IT

CHAPTER

4	Population and Housing	57
	Introduction	57
	The Emerging New Community	58
	Housing Development	60
	Population	62
	Residential Densities	66
	The Residential Environment	71
5	Schools, Parks and Recreation	78
	Schools	78
	Nurseries and Kindergartens	83
	Parks and Recreation	85
6	The Community Center	86
	The Vällingby Umland	86
	Commercial Development at the Community Center	95
	Development of Service Facilities and Office Establishments at the Community Center	104
	Parking Provisions	107
	Layout of the Community Center	108
	Local Shopping Areas	110
7	Employment and Places of Work	114
	Employment at Community Center	114
	Local Commercial Development and Employment	116
	Industrial Development and Employment	118
	Offices and Office Employment	123
	Total Employment	124
8	Stockholm - Vällingby Interdependence	130
	CONCLUSION	139
	BIBLIOGRAPHY	143

FIGURES

<u>Number</u>		<u>Following Page</u>
1	Stockholm and Greater Stockholm in the 1950s	3
2	The Stockholm Sprawl	5
3	Proposed Land Use for Vällingby, 1952	14
4	Population Growth of Vällingby, 1952-1964	62
5	Relative Age Distribution in Vällingby in 1955 and 1964, and Relative Age Distribution in Vällingby and Inner Stockholm in 1964	64
6	Land Use in Vällingby, 1965	72
7	Vällingby Umland	87
8	Building and Land Use at Vällingby Community Center (with overlay for second floor use)	108
9	Floorspace Changes for Firms Established during Early Development Period at Industrial Areas	121

TABLES

<u>Number</u>		<u>Page</u>
1	Population in City of Stockholm and Greater Stockholm, 1900-1945	4
2	Potential Purchasing Power of Vällingby Customers	41
3	Types of Dwellings Planned for Vällingby	43
4	Planned Number of Classrooms in Vällingby Schools	51
5	Number of Dwelling Units Completed Each Year	61
6	Population Growth of Vällingby	63
7	Children 0-1 year old per Thousand Population 1952-1964, in Vällingby	64
8	Relative Age Distribution in 1962	65
9	Persons per Dwelling Unit, 1954-1962	66
10	Occupants per Room, 1954-1962	67
11	Planned and Actual Residential Development	70
12	Average Number of Pupils in each Grade as a Percentage of Total Population Vällingby, 1952-1964	78
13	Planned and Actual Completion Dates for Vällingby Schools	82
14	Shopping Habits of Women in Vällingby Area	89
15	Percentage of Customers at Vällingby Center from Various Areas	92
16	Calculated Number of Visits to Stores in Vällingby Center per 100 Inhabitants in Various Areas	94

<u>Number</u>		<u>Page</u>
17	Number of Commercial Outlets at the Vällingby Center in 1955, 1957 and 1965	98
18	Total Floor Space of Retail Establishments at Vällingby Center	103
19	Floor Space of Office and Service Establishments in 1965	106
20	Persons Employed in Stores at Vällingby Center	115
21	Number of New Firms Established in Each Year	119
22	Types of Firms in Industrial Areas, 1965	120
23	Number of Persons Employed in Vällingby, 1960	125
24	Percentage Distribution of Trips according to Means of Transportation, 1958 and 1961	137

PLATES

<u>Number</u>		<u>Page</u>
1	Central Green Area	73
2	Central Green Area	73
3	Residential Development	74
4	Traffic Segregation	74
5	Residential Development	75
6	Preserved old building at Räcksta	75
7	Subway	111
8	Vällingby Center	111
9	Vällingby Center	112
10	Vällingby Center	112
11	Vällingby Center	113
12	Räcksta Neighborhood Center	113
13	Commercial Development at Grimsta	127
14	Commercial Development at Grimsta	127
15	Industrial Enterprise at Grimsta	128
16	Automotive Firm at Räcksta	128
17	Subway Depot	129
18	Hydro-power Office	129

INTRODUCTION

Although much attention has been paid to the planning of new towns and communities, little work has been done in assessing how successful these plans have been and to what degree they have been implemented. J. Dakin, Professor of Town Planning at the University of Toronto has pointed out this deficiency:

"We cannot pretend that we are taking adequate measures to feed back the results of our planning activities into our thinking and practice. ...It is essential that we have constant research into the working of what we have already planned and put into effect if we are to make any solid progress in developing our planning skills. If we have planned a residential area we must observe families living in it, traffic moving in it and children growing up over a period of years. This is surely very obvious but it is by no means the practice and planning authorities are not generally conditioned to the idea that they must spend money on a planning project after it has been physically completed".¹

From a geographic point-of-view the importance of studying the actual development in a planned community does not lie in the field of obtaining additional "planning skills", but rather in the field of understanding, evaluating and possibly theorizing about the urbanization process. Urbanization has been a major field for geographic research,

¹ J. Dakin, "Thoughts on Theory-Method in the Planning Process", Plan Canada, Vol. I, No. 3, Nov. 1960, p. 138.

particularly during the last century, because of its relevance to an understanding of spatial relationships and functional interactions.

The area chosen for this study is Vällingby, in the outskirts of Stockholm. It is a community which has received world-wide fame and is often praised as a well-planned community. Many are the articles which have been written about Vällingby and many are the names which have been given to identify its type of development: for example, 'satellite town', 'new town' and 'ABC community' (standing for Work-Live-Center). There is, however, no comprehensive study made for an international public that relies on primary sources. Remarkably enough, no article written outside Sweden has been found that makes direct reference to the General Plan of this new community. In Swedish there are two main studies based on primary material which deal with particular aspects of Vällingby - one concerning certain residential aspects, and the other concerning shopping and the community center.² Both of these studies are from the late 1950s. Most other written material has either originated from the Stockholm planners themselves or from writers relying on secondary sources only. Despite all the publications about Vällingby there is thus an obvious gap, which this study will attempt to cover.

² L. Persson, Kunderna i Vällingby, Stockholm 1960; E. Dahlström, Barnfamiljer i Höghus och Trevanings-läghus i Vällingby, Stockholm 1957.

Objectives

The main objectives of the present study are:

- (i) to study the original development proposals and the rationale behind these;
- (ii) to examine the actual development that has taken place in order to evaluate the degree to which the development of today conforms to the original plans;
- (iii) to assess the planned achievements and to account for planned and unplanned modifications to and departures from the original plans, and
- (iv) to deduce the reasons for any modifications and departures and to provide an evaluation of the changes.

Study Methods

Field and research work was done during the summer and early fall of 1965, and with few exceptions it has not been possible to cover material published at later dates.

During the early phase of the field work, the main effort was focused on the original planning proposals. The study methods at this stage involved:

- (i) obtaining original planning proposals, published in the proceedings of the Stockholm City Council, as well as detailed block plans with descriptions from the archives of the City Planning Department,

- (ii) interviews with the main creators of the plans to secure information regarding the reasons for the main decisions and planning proposals. The chief city planner at the time of the Vällingby development, however, declined any interviews or questions, and the writer was advised to rely on information given by other planners/architects at the department, who had been involved in the planning of Vällingby, but who often seemed to lack the inside knowledge or why certain decisions were made.

During the second phase of the work, the methods used were mainly:

- (i) review of City Council proceedings from 1947 to 1965, with particular reference to items concerned with the development of Vällingby,
- (ii) review of other published material about Vällingby, particularly the studies by Persson and Dahlström,
- (iii) examination of material in the archives of Svenska Bostäder, the main construction firm for the Vällingby development,
- (iv) collection of unpublished Stockholm statistics (computer lists),
- (v) personal interviews with officials from Svenska Bostäder, the public transport system, the school

board, the government hydro-power office, and other related agencies,

- (vi) interview surveys with customers at Vällingby center (commercial questionnaire) and with industrialists (industrial questionnaire),
- (vii) land use survey on maps at a scale of 1:1000,
- (viii) analysis of collected data with main emphasis on comparing present conditions to original planning proposals.

Presentation

Due to the limited amount of information about the original ideas and plans, comparisons of planned development and actual achievements are rendered difficult, and often it is not possible to give quantitative comparisons. The present study is therefore more descriptive than originally intended.

Part One of this study contains information regarding the planning concepts and proposals, while Part Two examines the actual development and functions of Vällingby as of 1965.

PART I

ORIGINAL PRINCIPLES AND PLANS FOR VÄLLINGBY

CHAPTER 1

THE GROWTH AND DEVELOPMENT PROBLEMS OF STOCKHOLM

Stockholm has a long history of planning, exemplified by Jean de la Vallee's proposal in the 17th century for wide planted boulevards through the central parts of the town, and by the 1640 Master Plan for the northern and southern districts, using a gridiron layout. In 1713 a grandiose plan was prepared for the surroundings of the royal castle, but it was not implemented due to wartime difficulties. Monumental planning was not forgotten, however, and in 1866 Albert Lindhagen presented a proposal for a system of wide avenues, focusing on monumental buildings and open squares as in Haussmann's Paris. Private landowners opposed the plan and the boulevards were never built. Early in the present century, the City bought large estates outside the city limits with the intention of building garden cities.¹ A few dormitory garden suburbs were later built.

Population Growth

Stockholm was founded some 700 years ago on a small island at the outlet of the Lake Mälaren to the Baltic Sea. It experienced slow growth over several hundred years, but in

¹ Stockholms Stads Stadsbyggnadskontor, Stockholm, a Planned City. Stockholm, 1965, pp. 1-2.

the early 17th century it became the administrative and political centre of the nation and a city planning office was instituted. The population increase was still slow, and in 1850 the capital had some 80,000 inhabitants only.²

During the latter half of the 19th century the industrial revolution generated a more rapid population increase, but this was the result of net migration rather than natural increase. Stockholm has long had a low birth rate and by the 1930s it was one of the lowest in the world. Population projections completed at this time were very pessimistic and stagnation was anticipated for the city.³ Consequently it must have been assumed that no major areas would be required for large scale expansion. During the Second World War the birth rate doubled compared to the rate of the early 1930s, reaching 21 per 1000 population,⁴ and with an unchanged death rate as well as an unchanged high net migration rate, an unexpectedly large population increase resulted.

The population growth of the City of Stockholm and Greater Stockholm between 1901 and 1945 is shown in Table 1. "The City of Stockholm" refers to the city as defined by its municipal boundaries, while "Greater Stockholm" is used to describe the built-up metropolitan area including the City of Stockholm and 27 other municipalities (Figure 1).

² E. von Hofsten, Demografiska Undersökningar av Stockholms Folkmängdstillväxt, Stockholms Stads Statistik X, Specialundersökningar Nr 22, Stockholm, 1941, p. 10.






³ Ibid., pp. 81-110.

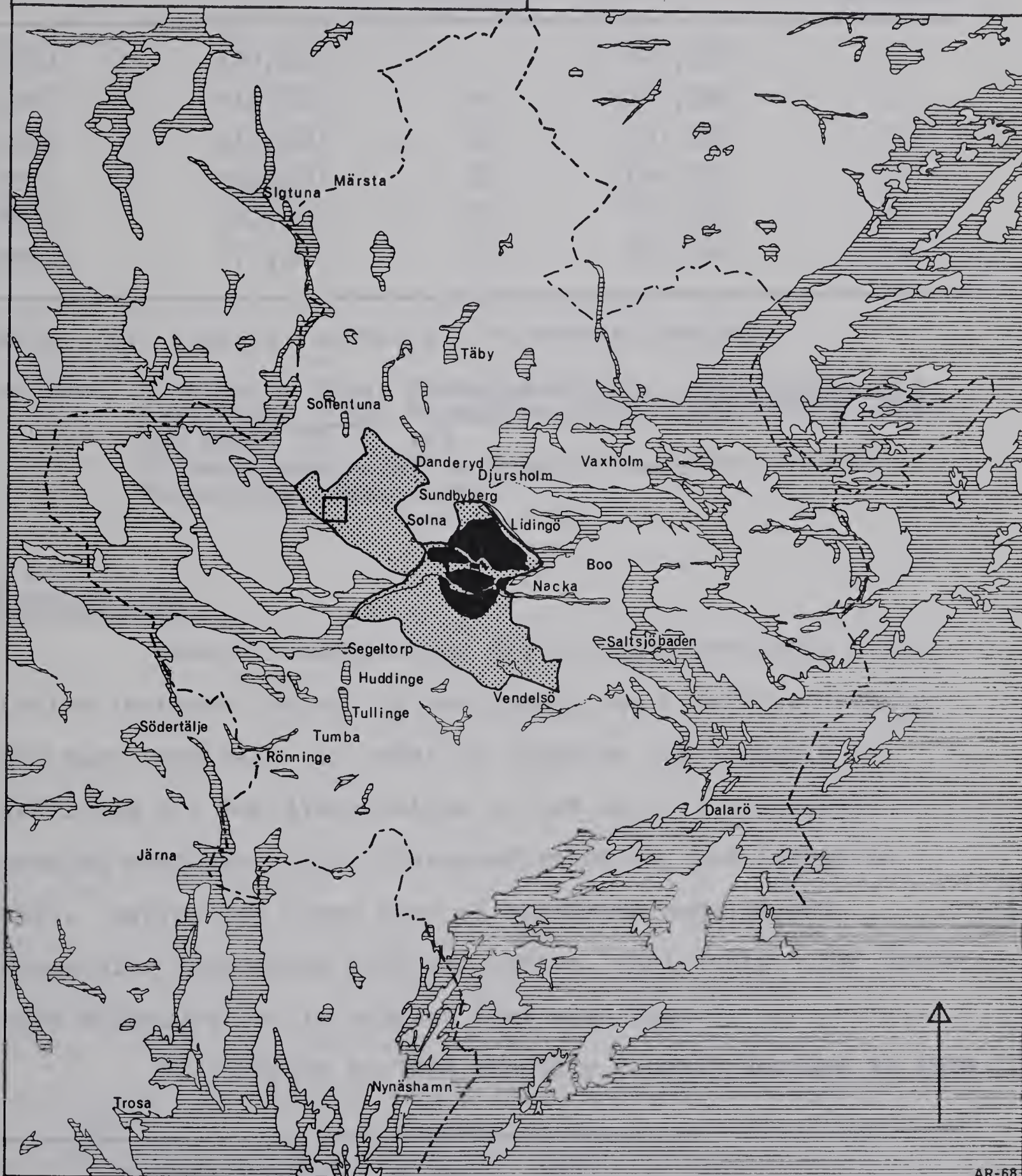
⁴ I.P. Winberg, "Några Befolkningsstatistiska tal i Regional Belysning 1891-1955", Ymer, No. 2, 1961, pp. 110-115.

Stockholm and Greater Stockholm in the 1950s

Figure 1

Legend

-  Inner City
-  Corporate Stockholm
-  Greater Stockholm
-  Vällingby
-  Boo Urban Community



AR-68

Scale

0 10 20 30 40 50 kilometers

TABLE 1 : POPULATION IN CITY OF STOCKHOLM AND
GREATER STOCKHOLM, 1900-1945

Year	City of Stockholm		Greater Stockholm	
	Total	Percentage Increase	Total	Percentage Increase
1900	300,600		321,000	
1910	342,300	14	410,500	28
1920	419,400	23	491,700	20
1930	502,200	20	604,500	23
1940	590,500	18	726,800	20
1945	671,300	14	834,300	15

Note: All figures rounded off to nearest hundred.

Source: Stockholms Stads Stadsplanekontor, Generalplan för Stockholm, 1952, Stockholm, 1952, Table 5A, p. 104 and Table C3, p. 443.
("Stadsplanekontor" - previous name for present "Stadsbyggnadskontor")

Housing Needs

Housing construction did not keep pace with population increase during the war years, and a serious housing shortage resulted. In order to organize the exchange of dwellings and the distribution of new units a municipal housing exchange office (Bostadsförmedling) was formed in 1947. During the first year of operation some 24,520 households registered with the office, while only 1,882 units were exchanged or distributed that same year.⁵

Furthermore in 1944 the City Council decided to have

⁵ Dagens Nyheter, March 1, 1967, p. 28.

a General Plan prepared for the city, the main aims of which were to determine the best use of land within the city limits and to establish standards for urban development. It was already realized, however, that the need for new housing was so great that all existing land reserves within the city limits would be utilized within the foreseeable future.⁶ In 1945 the city showed a rather scattered pattern of development with a tendency towards a radial structure, centered around a core consisting of the Central Business District (CBD), administrative and public buildings, and high density residences; it was also the focus of the transportation system. Surrounding this core there was an inner residential area which consisted mainly of apartment blocks mixed with some large institutions, such as hospitals and colleges. Further out from the core, and often concentrated along the main transportation lines, there were low density residential areas - dormitory garden suburbs built between 1910 and 1940.

This schematically described structure was greatly modified by the topography of the area. The city was built on ten islands (to mention only the larger ones) and the mainland north and south of the Mälaren outlet. Most of the major industrial areas were situated along the waterfronts, taking advantage of the possibility of water transportation. Other industrial areas were mainly to be found adjacent to the railways. The broken terrain, characterized by numerous

⁶ Stockholms Stads Stadsplanekontor, Generalplan för Stockholm 1952, Stockholm, 1952, p. 63.

Figure 2



faults aligned roughly from northeast to southwest in the northern part of the city, and from east to west in the southern part, further modified the urban structure. The main characteristics are shown on the generalized land use map of Stockholm in 1945 (Figure 2).

Apartment development, particularly in the ten year period preceeding 1945, had started to infiltrate into the green wedges between the radial spines, and had also started to spread beyond the garden suburbs.⁷ This rather unstructured development led to serious transportation problems, since many of these high density areas were unrelated to places of work and also were too distant from the only shopping district, the CBD.

A survey, undertaken by the Stockholm Statistical Office and published in 1947, studied a sample of complete family households (households with children) in the city which were formed after 1928. This study showed that only 21 percent of all households living in suburban apartments were satisfied with their housing situation. Of all the interviewed households only seven percent indicated a suburban apartment as their preferred type of accommodation.⁸ It was obvious that suburban apartment living was least desirable from the inhabitants' point of view. It was, however,

⁷ Ibid., p. 135.

⁸ Stockholms Stads Statistiska Kontor, Statistik rörande Stockholmsfamiljer, Stockholms Stads Statistik X, Specialundersökningar Nr 24, Bihang 8/47, Stockholm 1947, pp. 151-155.

equally obvious that the preferred type of dwelling, a single family home, could be afforded by a minority of households only. In 1948 only 21 percent of all city wage earners had an income of 10,000 Swedish crowns or more⁹ (approximately \$2,000 Canadian), and these were probably the only people who could afford to buy a detached house.

The great demand for housing required new residential areas to be developed at fairly great distances from the central area, where most land was already utilized. A subway network, which in 1945 was in its early phase of development, would make more distant areas accessible, allowing development of new residential areas and a greater dispersal of places of work.¹⁰ After the war a national policy was established to decentralize industry with the aim of achieving a more even distribution of employment opportunities over the nation. Consequently, it was practically impossible to obtain permission to establish a new industry in Stockholm - the National Board of Labor Market ("Arbetsmarknadsstyrelsen") would not issue a building permit nor would the municipal Property Board ("Fastighetsnämnden") grant permission to use land for industrial purposes, unless the industry depended upon particularly skilled labor (usually found only in large diversified cities) or unless the industry itself was considered essential for the capital. Existing industries

⁹ Stockholms Stads Stadsplanekontor, op.cit., p. 167.

¹⁰ Ibid., pp. 137-138.

which were wanting to expand were usually given the opportunity in peripheral areas only.¹¹

The Dispersed City Concept

In the discussion of Stockholm's future structure, the concepts of centralization versus dispersion were considered. In the centralized city such urban functions as administration, shopping, services, higher education and entertainment would be carried out at one dominating center, surrounded by residential areas of gradually decreasing density. Given the urban development of Stockholm around 1945, Sven Markelius, the chief town planner of the city, dismissed the idea of concentric growth saying that the city "lacked all pre-requisites for this type of expansion".¹² The dispersed type of city on the other hand would consist of one central city, surrounded by satellite towns, located within the same region. Theoretically there were no limits to expansion with this type of urban pattern. The theories in Ebenezer Howard's Garden Cities of Tomorrow were reviewed and the practical achievements in the satellite towns of Letchworth and Welwyn were praised.¹³ It was concluded that the concept of satellite towns could be applied to some development in the Greater Stockholm area, for instance the

¹¹ Loc.cit.

¹² S. Markelius, "Stockholms Struktur", Byggmästaren, 1956, A3, pp. 49-51.

¹³ Stockholms Stads Stadsplanekontor, op.cit, pp.138-147.

community to be developed adjacent to a new metropolitan airport.¹⁴ However, the planning of the Greater Stockholm region would fall within the scope of a Stockholm Regional Plan to be prepared later and therefore little further mention was made in the General Plan of satellite towns outside Stockholm.

It was appreciated that, if modified, some of the theories behind Howard's satellite towns could prove useful in the planning of new areas in Stockholm. Thus, planned suburban communities of limited size, built on publicly owned land with a substantial degree of self-sufficiency in both employment and shopping facilities were some of the aims for new development in the outskirts of Stockholm. These partially self-contained communities were envisaged as an alternative to the previous fragmented growth that had created transportation problems and had caused dissatisfaction with some types of housing and with the poor relationship between residential areas and industrial and commercial development.

The future structure of Stockholm with a projected population by 1970 of approximately 900,000 people, was planned to contain one dominant central area with a high concentration of work places. This central area was estimated to contain some 290,000 work places, but it would provide

¹⁴ Ibid., p. 148.

housing for only 400,000 inhabitants in high density development. More than half of the employees in the central area were to be housed in dormitory suburbs within the inner suburban ring, consisting of both high and low density housing but offering very limited employment opportunities. Finally, the outer suburban ring was planned to contain the aforementioned type of partially self-contained communities providing both work places and dwellings of various types. District shopping centres were planned to serve all the major needs of the inhabitants in the outer suburbs. The estimated suburban city population would amount to some 500,000 persons and the work places to 160,000, concentrated in the outer ring. Another estimated 400,000 would live in communities outside the corporate limits of Stockholm. The total Greater Stockholm population was estimated not to exceed 1.3 million inhabitants.¹⁵

An intricate transportation network consisting of already-built railway and streetcar systems, as well as the new subways and extended bus lines, was planned to provide public transportation. The railway network, radiating from a central (downtown) station, was intended mainly for long-distance traffic, connecting satellite towns and major urban centers with the capital. The streetcar routes, extended as they were to the inner suburban ring, were not to be changed

¹⁵ Ibid., pp. 285-300.

until a special traffic study had analyzed their usefulness. The new subway system, based on radial lines would make possible the development of the outer suburban ring without exceeding the maximum standard travelling time of 30 minutes from suburb to the city center (or 45 minutes from door to door). Communities would be strung along the subway lines and wedges of open space, extending as far as possible towards the city center, would be left undeveloped between these spines.¹⁶

After the war the street network was already strained in the central area, and with an anticipated doubling of the 1939 car stock to 100 cars per 1000 population, traffic improvements would become most essential. A higher degree of street differentiation was to be sought, but even with improvements it was considered impossible to avoid congestion in the center during rush hours. Decentralization of work places as well as heavy reliance on public transportation would therefore become essential. The basic street network would consist of a number of radial arterials, joining a ring road that surrounded the inner city. The rudiments would also be there for a second ring road, approximately separating the inner and outer suburban rings.¹⁷

¹⁶ Ibid., pp. 262-264 and 290-292.

¹⁷ Ibid., pp. 239-261 and 309-315.

CHAPTER 2

VÄLLINGBY IN A METROPOLITAN FRAMEWORKHistory of Vällingby

Early in the twentieth century, the City Council had bought extensive rural land in the vicinity of Stockholm. The district of South Spånga, to the northwest of the city, was one of the largest acquisitions, and what is now Vällingby composed about half of that district. It consisted almost entirely of cultivated land with a few farmhouses, and only in the northeastern part was denser settlement to be found. South Spånga had experienced a long history of occupation, as witnessed by its grave-fields from the Bronze Age (about 1800 B.C.) and from the Iron Age (600 B.C. to 100 A.D.). During the late Middle Ages part of the ground was owned by a monastery and another religious order. After the Reformation (1523) five small homesteads occupied the grounds, but they were generally taken over by the aristocracy (the Bondes), and during the seventeenth century a manor-house settlement developed. One old manor-house still exists, the Hässelby Slott, offering a pleasing contrast to the recent development. It is now owned by the City of Stockholm.¹

The name of Vällingby is also old, being first mentioned in 1315 in a donation letter to a monastery. The

¹ Vällingby - Västervy, summer 1956, p. 1.

first part of the name comes from the word "vall", meaning greensward, and the second part "by" stands for an old word for farm.² This provides a clue to the original use of the ground, namely tending cattle. This accords well with the information that some of the ground was swampy and had to be ditched before cultivation was possible.

Of greater interest, however, is the fact that the area was never densely settled and was still farmland when it was acquired by the City of Stockholm. Not until there was an actual need for urban development was South Spånga incorporated with the City. This took place in 1946,³ at which time it was the only extensive undeveloped area within the city limits north of the Mälaren outlet. In the southern part of the city, areas suitable for residential construction were also available, but their development was contingent upon subway construction. Because of bridging problems, the southern line would take longer to complete and the north-western suburbs could therefore be opened earlier for development. Outside the city limits there were extensive undeveloped areas, but these fell under different jurisdictions, and the city planners could not propose development of such areas unless they were first annexed to the City. Thus the only possibility for early large-scale development was the Vällingby district which could be connected with inner Stockholm at an

² Ibid., p. 3.

³ Stadskollegiets Utlåtanden och Memorial, Bihang 4/46, Stockholm, 1946.

early date by subway, and was already connected by road. The housing shortage made development urgent, and the site that could be developed without delay was chosen for the first "new community" within the framework of the General Plan.⁴

Early Development Proposals

Vällingby is included in the district of South Spånga, along with Hässelby Gård, Hässelby Strand, Johannelund, Hässelby Villastad and Blackeberg (Figure 3). The latter two were already planned and largely developed in 1940, when the first comprehensive development proposals were made for South Spånga; they were therefore excluded from the plans.

In the plan of 1940, high density residential development was proposed for most of South Spånga, including the Grimsta area which was a natural reserve. The plan was criticized for proposing the development of the reserve area and for the inconvenient and expensive transport system which would be required (train or streetcar and bus transport combined). The subsequent plan of 1946 proposed that development should be grouped in neighborhoods, centered around small shopping areas. A large part of the Grimsta reserve was recommended to remain as open space. It was also proposed that a branch line of the subway should serve South Spånga. After detailed soil investigations, however,

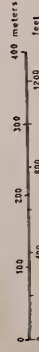
⁴ Pers. comm., J. Stäck.

Figure 3

PROPOSED LAND USE for
VÄLLINGBY, 1952



Scale



it was found that some areas proposed for development could only be utilized if expensive foundation work was carried out. Land use changes due to soil conditions were presented in the 1948 proposals which, after consultations and discussions with various authorities, were presented in somewhat revised form under the name of General Plan for South Spånga of 1949.⁵

General Plan for South Spånga 1949-1952

In the spring of 1949 the City Planning Department submitted the General Plan for South Spånga to the City Planning Board which approved it in principle (April 20, 1949). The General Plan was then referred to various civic departments, boards and organizations which reviewed the plan in detail,⁶ particularly those proposals affecting their own sphere of interest. Their reactions were evaluated by the Planning Board before the plan was presented to the City Council. Several interesting observations were brought forth, some of which led to modifications or revisions of the 1949 plan. A strong request for increased residential density around the Vällingby community center, and many questions

⁵ Stadskollegiets Utlåtanden och Memorial, Utlåtande 382/50, Bilaga A och B, Stockholm 1950.

⁶ Sweden has a system whereby major reports, proposals and bills are transmitted to various authorities and organizations for observation before being approved or disapproved by the City Council. This practice is considered an essential part of the democratic system.

regarding the wisdom of developing even the northern section of the Grimsta reserve, led to a relatively major redistribution of land uses. The estimated high costs for providing public transport (bus line) to Grimsta contributed to a decision to reduce residential development to approximately half of the proposed area in this neighborhood. Density was increased in other parts to balance this reduction, so that the total estimated population remained the same for Vällingby as a whole.⁷

As the objections against the proposed plan were not considered to be on points of principle and as the housing shortage in Stockholm made the development urgent, the plan was approved by City Council on December 4, 1950, with the recognition that some revisions would become necessary.⁸ The revised plan, incorporating the aforementioned changes, was completed in 1952. At that time some detailed layout plans had already been accepted, and construction had been started in Vällingby.⁹

It should be noted that the report referred to in official publications as the General Plan for South Spånga consists only of a generalized land use map, accompanied by

⁷ Stadskollegiets Utlåtanden och Memorial, op.cit., and Stockholms Stads Stadsplanekontor, Beskrivning till Förslag till Ändring och Utvidgning av Generalplan för Södra Spånga, med Areal - och Befolkningsuppgifter, Stockholm, 1952, p. 1.

⁸ Stockholms Stads Stadsplanekontor, loc.cit.

⁹ Loc.cit.

some ten pages of descriptive text. The report can hardly be considered a General Plan by itself, since it does not contain statements regarding planning principles or standards to be applied in the community. Nor does it contain any discussion of the reasoning behind the proposed land use distribution, any staging program or any cost estimates. More properly the report can be considered as a supplement to the Stockholm General Plan. South Spånga, being a part of the City of Stockholm, was included in the General Plan for Stockholm which was under preparation at the same time. Principles and standards recommended in that report were to be applied in South Spånga as well. Both plans were prepared by the City Planning Department, with the chief planner, Sven Markelius, responsible for the two documents.

Proposed Functional Interaction between Stockholm and Vällingby

"It is obvious that this area [South Spånga] cannot be treated as an isolated unit and that its planning must be co-ordinated with that of the Stockholm region as a whole."¹⁰

By this statement the Royal Building Board (Kungliga Bostadsstyrelsen) wanted to impress upon the authorities that the plan for South Spånga should not be finalized and implemented until a regional plan had been worked out. This regional plan, however, was not completed

¹⁰ Stadskollegiets Utlåtanden och Memorial, Utlåtande Nr 382/50, Bilaga A och B, op.cit.

until 1958 and not adopted until 1960. In the meantime, several suburban communities had been built, among them Vällingby and the remainder of Spånga.

Guidelines for metropolitan structure and functional relationships were contained in the General Plan for Stockholm, and suburban development was to take place on the basis of this plan. Vällingby and other new communities were meant to be neither dormitory suburbs nor satellite towns. The concept was rather to create a new type of suburban community with a certain degree of functional, social and architectural coherence. It was hoped that this would be achieved by decentralizing some traditionally central functions to the suburban communities, which would come to contain shopping centers, cultural institutions, health and medical clinics, and similar community services. Not only would these serve the local inhabitants, but they would also provide employment opportunities for the persons living in the area. For similar reasons, an industrial area would, if possible, be part of each new community.¹¹

In the General Plan it was stressed that sense of community is often lost among citizens of a metropolis, and it was therefore hoped that the smaller unit with several communal facilities would give people a sense of affinity and help create local interest groups. The neighborhood structure

¹¹ Stockholms Stads Stadsplanekontor, Generalplan för Stockholm, 1952, Stockholm, 1952, pp. 117-124.

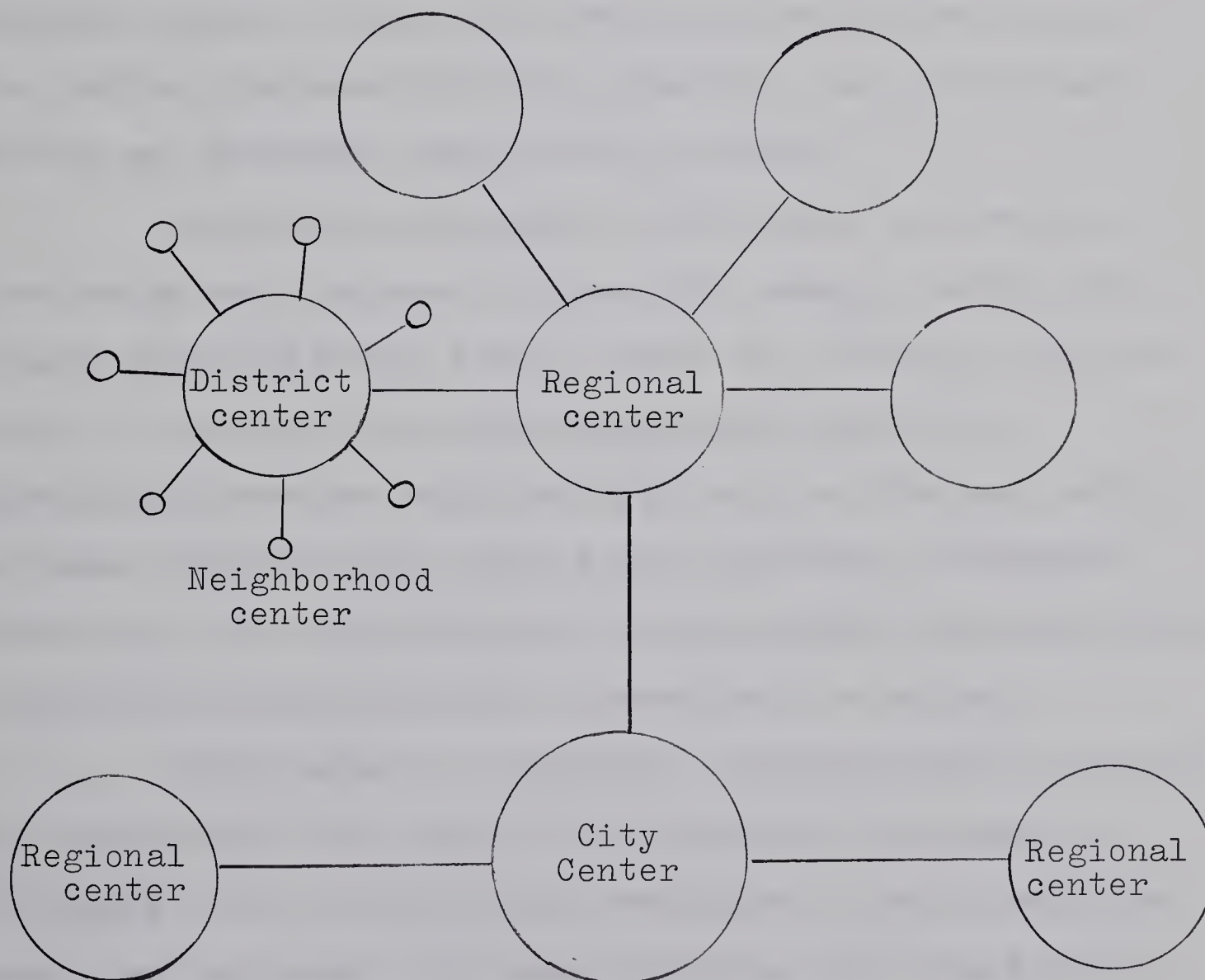
and architectural design and grouping of buildings were intended to emphasize the unity further.¹²

On the other hand Vällingby was never intended to be more than partially self-contained, and the interdependence between Stockholm and the new community was to be manifold and diverse. The aim was to organize Greater Stockholm according to a polycentric system. This system was based on several centers at different levels of a hierarchy with the city center at the apex. Each level of center was to have its own functions. The highest level would provide specialty shopping, specialized services and education, entertainment, museums and other higher cultural facilities. One step down the hierarchy there would be the regional center, based on a customer potential of about half-a-million inhabitants. The next category - the district center, of which Vällingby would be one, was intended to have a customer potential of about 100,000 inhabitants. Neighborhood centers (population base about 15,000) and local centers (4,000 to 7,000 inhabitants) were placed lower still in the hierarchy. Local centers that had been built by 1945 had comprised a few shops with everyday convenience goods as well as some public buildings such as a post office, and a secondary school. The neighborhood and local centers had been found to be too small, if they were not functionally related to a larger center at the district or regional level. According to Markelius,

¹² Loc.cit.

"The whole of the suburban ring was, with few exceptions, split up into small units, with between a couple of thousand and 10,000 inhabitants, with small badly-equipped centers and as a rule, no possibility for grouping around a larger collective center. If such a center is to be equipped with department stores, high-class shops of different kinds, premises for spare-time activities, theatre and cinema, then planning must be carried out on an entirely different basis."¹³

The new planning ideals were based on arranging neighborhoods with their own small centers around district centers and eventually regional centers. The concept is illustrated schematically in the diagram below.



¹³ S. Markelius, "Stockholms Struktur", Byggmästaren, 1956, A 3, p. 54. (English translation, p. 73).

There was no further mention of regional centers in the General Plan and it is obvious that these centers were only considered as long range planning goals. There have as yet been no regional centers built in Stockholm. Vällingby was planned to contain a district center.¹⁴

What functional relationship was planned to exist between the inner city and Vällingby? In the case of shopping, all types of convenience goods (food, clothing, household equipment, furniture, etc.) were to be provided at the district center level, while the suburban customer who wanted specialty goods or a greater selection would have to go to the Central Business District, where the large department stores and specialty shops would be found.

A similar arrangement would apply to services. Some banks and insurance offices, for example, would have a branch at the district center, where all ordinary services could be handled, while more complicated matters or specialized services would be dealt with at the main office. A branch library would carry a wide spectrum of standard literature, but would rely on the main office for scientific, technical and other special literature of a subject.

With regard to education, students would be able to get theoretical training up to a university entrance in Vällingby, but for specialized education in such fields as music, art and most vocational subjects, they would have to

¹⁴ Stockholms Stads Stadsplanekontor, Generalplan för Stockholm, 1952, op.cit., pp. 331-334.

attend schools in more central locations. Colleges and technical, vocational and art schools, as well as the university, would remain centralized in inner Stockholm, where they had the necessary contacts with museums, libraries and document and art collections. The only exception would be a teachers' training college for post-graduates on a site at Vällingby. In this case the rest of Stockholm would be dependent on Vällingby, as this college was the only one of its kind in the city.

The Vällingby residents were also expected to go to the city center to find a greater choice of entertainment and cultural events, such as plays, operas, concerts, sports events and lectures. On the other hand, the inhabitants of the city center would be expected to travel the opposite way to seek outdoor recreational opportunities, for example in the Grimsta reserve.¹⁵

One of the most important aspects of the functional relationship was the desire to have a common labor market for the entire metropolitan area. Certainly, the intention was to distribute work places and dwellings more evenly over the entire urban area, but this was hoped to be achieved without restricting the mobility of the labor force to such a degree that the advantages of a metropolitan location or of metropolitan living would be lost. By locating work places in conjunction with main transportation lines, and by pro-

¹⁵ S. Markelius, op.cit., pp. 53-54.

viding efficient and rapid transport, mobility of the labor force would be possible. Business firms would thus have a greater possibility of obtaining even highly specialized employees. Wage earners on the other hand, would have similar advantages in having a greater choice in employment opportunities and greater security during times of economic fluctuation within particular industries.¹⁶

It was realized that functional interaction would not be possible without an efficient transportation system. Public transportation was the main consideration of the planners as private cars were few at the time of the Vällingby development (38 cars to 1000 persons in 1950).¹⁷ The subway which was to be opened in 1952 for the northwestern suburbs, provided direct and rapid mass transportation. The traveling time from Vällingby to the Central Business District would be 25 minutes with one train running every 12 minutes.¹⁸ A major highway - Bergslagsvägen - from inner Stockholm to Vällingby already existed. It had been built during the 1930s as a national, subsidized undertaking to provide relief employment.¹⁹ A third link between the northwestern suburbs and the city center was a railroad, Västeråsbanan, passing

¹⁶ Stockholms Stads Stadsplanekontor, Generalplan för Stockholm, 1952, op.cit., pp. 137-138.

¹⁷ Ibid., pp. 243-245.

¹⁸ Stockholms Stads Fastighetsnämnd, Räcksta Vällingby, Stockholm, 1952, p. 3.

¹⁹ Pers. comm., J. Stäck, Stadsbyggnadskontoret, Stockholm.

some 2.5 kilometers northeast of Vällingby. There had been some early plans to extend it in the direction of Vällingby,²⁰ but the plans had later been omitted in favor of the subway. Regular bus service between the communities on the railway and Vällingby was to be introduced instead. Financial feasibility was the main deciding factor in these transport arrangements.²¹

Both economically and administratively, Vällingby would belong to the greater unit-Stockholm. This meant that Vällingby residents would not have to pay higher taxes, even if expenditures would be much heavier for this part of the city during the development years. On the other hand Stockholm would not lose these taxpayers to surrounding communities. Another economic gain would be reaped by subway commuters, as this public transportation system was subsidized by the City. The administrative unity would make comprehensive planning easier, as local interests could not dominate the interests of the whole city. However, it could also make it difficult to obtain approval for purely local proposals. All the different parts of the city would be represented in the City Council.²²

²⁰ Stadskollegiets Utlåtanden och Memorial, Bihang 4/46, op.cit.

²¹ Stadskollegiets Utlåtanden och Memorial, Utlåtande 382/50, Bilaga A och B, op.cit.

²² Stockholms Stads Stadsplanekontor, Generalplan för Stockholm, 1952, op.cit., p. 125, and pp. 361-385.

CHAPTER 3

ORIGINAL PRINCIPLES AND PLANS FOR VÄLLINGBYSite Description

Vällingby is located some 12 kilometers (about 7.5 miles) west-northwest of the city center along an arm of the Mälaren Lake. The whole South Spånga district covers 885 hectare (2186 acres), of which Vällingby, including Grimsta reserve, makes up 485 hectare (1198 acres).¹

The site on which Vällingby is built offers a varied topography. A fault-line running in a north-westerly to south-easterly direction forms the shoreline of the lake. The rise of the slope is fairly modest for a fault-line, only 22 degrees. The local relief of the whole area is only 44 meters (144 feet) with the highest point in the Grimsta reserve. Generally the higher sections of land consist of outcrops of bedrock, covered with a thin layer of moraine, while most of the loose material has been carried into the depressions by ice and water. The low-lying areas are usually floored with glacial or post-glacial clays, and some of them are impossible or difficult to use as construction sites. Some of the lowest areas contain peat bogs or swamps. One fairly large swamp has been ditched to form a lake, Räcksta Träsk, which partly delimits Vällingby to the south.

¹ Stockholms Stads Stadsplanekontor, Beskrivning till Förslag till Ändring och Utvidgning av Generalplan för Södra Spånga, med Areal - och Befolkningsuppgifter, Stockholm, 1952, pp. 1-3.

grounds were cultivated, but the natural vegetation had been left on the poorest soils. Usually these areas coincide with the high grounds from which the sediments had been washed away. Birch and other deciduous trees, as well as pine and spruce, accentuated the difference between the small hills and the open low-lying fields. A dense shrub layer on the hills was occasionally broken by rock outcrops.² Many of the prehistoric grave-fields could be found on the higher ground.

With the exception of the Mälaren Lake and the Räcksta Träsk, there were no significant physiographic boundaries separating Vällingby from the surrounding areas. To the south and southeast, Vällingby bordered on the partly built-up community of Blackeberg and a large mental hospital "Beckomberga". To the north and northeast there were the dormitory suburban areas of Flysta, Nälsta and Vinsta, separated from Vällingby by a narrow strip of low-lying land, accommodating a high voltage power line. North-west of Vällingby the land was undeveloped, but development proposals were contained in the plan for South Spånga. An existing major road separated northern areas of Johannelund, Hässelby Gård and Hässelby Strand from Vällingby.

The varied topography acted as both a restriction and a resource for the planners, in that it sometimes limited

² Stockholms Stads Stadsplanekontor, Generalplan för Stockholm, 1952, Stockholm, 1952, pp. 417-424, and E. Laurell, and B. Hedenstierna, "Stockholmstraktens Topografiska Huvuddrag", Ymer, Nos. 2-4, 1938, pp. 125-137, and Topographic map, 75. Stockholm S.O., 1:50,000.

the type of development on a particular land parcel but it also gave the planners opportunities to integrate physical and cultural features in many different ways.

The General Structure of Vällingby (Figure 3)

The area included in this study is made up of three parts, of which Vällingby was originally only one. The other two are Räcksta and Grimsta. However, the three were to make up a unit both functionally and, to a certain extent, socially. In official statistics and records they are often treated as a unit and everything written about Vällingby really deals with all three parts. When only the Vällingby part is meant, it will be called the Vällingby neighborhood. The three parts can be considered as separate neighborhoods, together forming one community to which the name Vällingby has also been given.

Grimsta is the largest of the neighborhoods in the area, but was to have fewest inhabitants based on the South Spånga plan. Only a narrow strip along the highway - Bergslagsvägen - was proposed for housing. The reason for restricting development to this narrow ribbon could be attributed to the strong criticism of previous proposals in which considerably more development of the area had been recommended.³ Under the revised proposals of 1952, only ten percent of the area would be built up, while the remaining land was to be left as open space to serve as recreation area

³ Stadskollegiets Utlåtanden och Memorial, Utlåtande 382/50, Bilaga A och B, Stockholm, 1950.

for the surrounding neighborhoods (Grimsta reserve). The proposed housing development consisted almost exclusively of apartments, presumably to provide an adequate population base for supporting a school within the area, despite the reduction in total residential land. A local shopping center was proposed in the middle of the housing area. A site was reserved for a public school (grades one to six) in a central location facing the Grimsta reserve. Provision was also made for two nurseries, one on either side of the school, and for a sports ground adjacent to the school site. A small portion of land in the southern end of the proposed development was reserved for row-housing. Between the highway and the Råcksta Träsk, land was set aside for a cemetery, since there was a deficiency in this respect for the western suburbs as a whole.⁴ Northwest of the residential ribbon, space was provided for a teachers' training college on a very attractive site, facing the Hässelby Slott. A large sports ground was to be laid out adjacent to this college, within the Grimsta reserve. To complete the neighborhood, a very small industrial zone was included along the highway, where easy access could be provided.⁵ (refer to Figure 3).

The second neighborhood, Råcksta, on the northeastern side of the highway, was planned to have an industrial area between the highway and the subway. The latter was

⁴ Stadskollegiets Utlåtanden och Memorial, Utlåtande 94/59, Stockholm, 1959.

⁵ Pers.comm., J. Stäck, Stadsbyggnadskontoret, Stockholm.

designed to traverse the western part of the neighborhood, separating industrial from residential areas. The largest part of the industrial area (11.2 hectare) was set aside for a depot for the repair, maintenance and storage of subway cars, while the remaining part (4.2 hectare) was designated for small industries.⁶ The reason for selecting this parcel of land for industrial use was that the subway company required a depot for the western branch, close to its terminal point, preferably located between two stations for easy access, and on reasonably level ground.⁷ The tract between Räcksta and Vällingby best met these requirements. Immediately adjacent to this industrial area, land was reserved for a technical school.

Another site, bounded by major roads on two sides and subway tracks on the third, was considered suitable for a hospital to serve the western suburbs. A large hospital complex, the Beckomberga mental hospital, was located immediately outside the Räcksta neighborhood, some 300 meters away from the proposed new hospital site. The new site also had the advantage of being immediately adjacent to the Räcksta subway station. It is assumed that these factors influenced the choice of site, but no explanations of land use distribution are given in the proposals for Vällingby in the South Spånga Plan.

⁶ Stockholms Stads Stadsplanekontor, Archives, Stadsplan Räcksta I, Stockholm, Jan. 5, 1950, Stockholm 1950, p. 1.

⁷ Pers. comm., J. H. Andersson, Stockholms Spårvägar, Stockholm.

The general structure of the residential part of the Räcksta neighborhood was to follow the principle of highest residential density close to the subway station. The station was planned between the hospital and the technical school. A high density zone with apartment blocks was designated on the eastern side of the subway. East of this high density area, the Plan called for a row-housing zone, well suited for the rolling landscape of this ground. Further away still from the subway, single family houses were provided for. A school and adjacent playground were to be laid out at the northern end of the neighborhood, and a small shopping center in the southern part, close to the Räcksta station.⁸ (refer to Figure 3).

The third and most populous neighborhood, Vällingby, northwest of Räcksta, was intended to have the main shopping center which would serve all three neighborhoods and an extensive surrounding area. How the site for this main shopping center was selected is most uncertain, since the person responsible for policy and decision-making firmly declined an interview and no written material could be traced on the topic. A general principle of building shopping centers in close proximity to subway stations is, however, outlined in the General Plan for Stockholm.⁹ The Vällingby Center

⁸ Stockholms Stads Stadsplanekontor, Archives, Stadsplan Räcksta I, Stockholm, Jan. 5, 1950, loc.cit., and Idem, Stadsplan Räcksta II, Stockholm, March 7, 1950, Stockholm, 1950, pp. 1-2.

⁹ Stockholms Stads Stadsplanekontor, Generalplan för Stockholm, 1952, op.cit., pp. 201-202.

was to be built over the subway, so that the subway station would be located in the "basement" of the center.¹⁰ High-rise apartments were to be concentrated around the center, while at increasing distances there would be zones of gradually decreasing densities from three-storey apartments and row houses to single family homes. Like most of the specialized facilities, the high school was to have a central site, and a school ground was set aside close to the center and the station. On the other hand, a combined elementary and junior high school serving only the neighborhood, was planned away from the center as part of the residential area. In addition to parks, only one fairly small sports ground was planned for, and it was to be located at the northern part of the neighborhood. There were going to be quite distinct precincts in both this largest neighborhood and in Räcksta. No industrial area was planned for the Vällingby neighborhood.

Open space was intended to surround all three neighborhoods, but in most instances this open space would be narrow ribbons only, and could by no means be described as a green belt, except for the Grimsta reserve. It could better be characterized as land unfit for residential development either because of traffic disturbance or an excessively high water table.¹¹

¹⁰ Stockholms Stads Stadsplanekontor, Archives, Stadsplan Vällingby II, Stockholm, April 6, 1951, Stockholm, 1951, pp. 1-7.

¹¹ Stockholms Stads Stadsplanekontor, Archives, Stadsplan Vällingby IV, Stockholm, Sept. 14, 1950, Stockholm, 1950, pp. 1-2.

The street system was planned to be differentiated according to traffic need. Three arterial roads would connect Vällingby with other western suburbs and the city center: one was Bergslagsvägen which separated Grimsta from Räcksta and Vällingby, and the other two formed the north-western and south-eastern boundaries of Vällingby and Räcksta respectively. Then there would be secondary streets acting as feeder-streets to the shopping center and to the housing precincts. At the third level, local streets, mostly culs-de-sac, would serve only as access to a limited number of buildings. Superimposed on this, a network of walkways was planned which would be almost completely separated from the street pattern with under-or over-passes at the intersections.¹² The planners had been inspired by Clarence Stein and Henry Wright, who, twenty years earlier had introduced separated walkways at Radburn (U.S.A.).¹³

Population Base

When the dormitory suburbs had been built, little attention had been given to the total number of inhabitants which they were eventually to have. This was hardly even necessary, as very few public facilities were provided. An early attempt to plan a suburban community, Årsta, for a definite size of about 8,000 inhabitants, had shown that the

¹² S. Markelius, "Stockholms Struktur", Byggmästaren, 1956, A 3, map "Trafiknätet" with description, pp. 62-63.

¹³ C.S. Stein, Toward New Towns for America, Cambridge, Mass., 1966, pp. 41-48.

population base was too small. According to A. Aronsson, director and chief planner of the construction firm that built 75 percent of Vällingby, a population base of 7,000 to 10,000 could not support a suburban center with a variety of service, cultural and social activities.¹⁴

The negative experience of small centers led to planning on a much larger scale. Vällingby was to be the center of a whole district, made up of four new suburban communities: Blackeberg, Vällingby (including Räcksta and Grimsta), Hässelby Gård and Hässelby Strand. These new suburbs together were expected to have a population of about 60,000. This estimate was based on the amount of available residential land, the anticipated type of development and estimated density figures.¹⁵ A few older settlements with single family houses accounted for an existing population of about 20,000.¹⁶

The umland of Vällingby was thus considered to have a capacity of about 80,000 inhabitants. The boundaries, though, were not very clearly defined. In the north, Hässelby Villastad was included, but communities like Skälby, Björkeby and Barsbro were not mentioned (all were outside the corporate boundaries of the city). The north-eastern boundary

¹⁴ Pers. comm., A. Aronsson, Svenska Bostäder, Vällingby.

¹⁵ Stockholms Stads Stadsplanekontor, Beskrivning till Förslag till Ändring och Utvidging av Generalplan för Södra Spånga, op.cit., p. 3.

¹⁶ S. Markelius, op.cit., p. 53.

would fairly well parallel the railroad (Västeråsbanan) and the Bromma airport, while the southern limit would be the undeveloped ground south of Ängby, extending to the Mälaren Lake which would set a limit to the umland in the west. The radius from the center to the furthest communities was about four to five kilometers, and within this area there was no center which could provide much more than everyday goods.

Vällingby itself was planned to have a population of about 23,000. This figure was arrived at as a compromise of several factors, such as:

- a) the amount of land suitable for residential purposes;
- b) pressure from merchants to accommodate as many persons as possible within walking distance of the planned center;
- c) the desire to make the Stockholm subway as self-supporting as possible, by accommodating large numbers of potential users around its stations;
- d) the need to relieve the housing shortage by building large numbers of new dwellings; and
- e) the known preference of Stockholm families for single family homes.

During the planning process land considered suitable for residential purpose had gradually been decreased, mainly due to the pressure to preserve as much as possible of the Grimsta reserve. From 1949 to 1952 this reduction amounted to

close to 40 percent of the total residential area of Vällingby. Obviously if the community were still to accommodate the same number of inhabitants, density would have to be increased considerably. This was well in line with the wishes of "Stockholms Köpmannaförbund" (Stockholm Retail Traders' Association) which considered that a population base of 20,000 to 25,000 inhabitants within walking distance of the planned center would be required to support the type of center that was planned.¹⁷

A number of commercial surveys had been undertaken in Stockholm to establish the necessary population base for various types of stores and facilities. One survey that particularly studied Stockholm suburban requirements in the mid and late 1940s, showed that such establishments as well-equipped book stores, large men's shops, liquor stores and banks required over 10,000 population.¹⁸ In the General Plan for Stockholm, 25,000 inhabitants were considered the minimum for supporting such facilities as a large shopping center, a work area, a high school, collective apartment blocks, a swimming pool, a restaurant, a cinema, a large assembly field, a welfare office, a medical insurance office, a labor exchange, a registrar's office and a church.¹⁹

¹⁷ Stadskollegiets Utlåtande och Memorial, Utlåtande 382/52, loc.cit.

¹⁸ B.G. Bohman, Stadsplanering för Detaljhandeln i Stockholms Ytterområden, Handel och Näringsliv i Stockholm, Stockholm, 1948, pp. 76-85.

¹⁹ Stockholms Stads Stadsplanekontor, Generalplan för Stockholm, 1952, op.cit., p. 230.

Similarly, the subway would depend upon high population concentrations, and a standard had been established in the Stockholm General Plan for the suburban areas, proposing high density development within 500 meters of the subway station and low density development within 900 meters. This standard was based on a study of travelling and walking habits of suburban inhabitants in Stockholm, undertaken in 1945 by the National Railway Board. This study indicated that 800 to 1,000 meters was the maximum walking distance.²⁰

Thus the reasons for high density development were many, and the preferences of many Stockholm families for individual houses were overshadowed. A community mainly of multiple types of housing was proposed by the planners. The total population of the future community was decided on the basis of available residential land, developed at a density that was acceptable both economically and socially. With a total of 100.5 hectare of residential land, some 23,000 persons could be accommodated at an average density of 231 persons per hectare.²¹

²⁰ Statens Järnvägsstyrelse, Förortstrafiken på SJ:s Järnvägslinjer inom Stockholmsområdet, Stockholm, 1950, pp. 8-11.

²¹ Stockholms Stads Stadsplanekontor, Beskrivning till Förslag till Ändring och Utvidgning av Generalplan för Södra Spånga, op.cit., pp. 1-2.

Community Center

The Vällingby center was to be built on a site which would be easily accessible both for the Vällingby umland and for the new community itself. The total area planned for the center would be 6.8 hectare (16.8 acres). It was proposed for the northern side of Vällingbyvägen, the street that was to separate the Vällingby and Räcksta neighborhoods. It is noticeable that the selected site was not on an arterial street. Access to the center would be more convenient for pedestrians and subway travellers. As it was anticipated that the main transportation means would be the subway, close proximity between the subway station and the center was fundamental. The problem, however, was that the tracks which were overground in most suburban areas could form a barrier and separate the central area of the community into two physically distinct parts.²² The suggested solution was to locate the tracks in a valley between two small hills and to build a concrete raft over them as a base for the center. Proximity between subway station and community center would thus be achieved without physical separation.

The plans for the general layout of the center were outlined by the city planners in the detailed block plan.²³ It was to comprise an L-shaped plaza around which the stores

²² Stockholms Stads Stadsplanekontor, Archives, Stadsplan Vällingby II, Stockholm, April 6, 1951, pp. 2-3.

²³ Loc.cit.

would be grouped. A wide range of shops was allowed for, but one major department store was proposed for the northern part of the center. From comparisons with floor-space figures from the suburban town of Sundbyberg, and from investigations of the minimum service requirements and the average sizes of different kinds of shops, the ultimate floor space need of all stores was calculated to be 20,000 square meters. Public buildings were proposed to be built southwest of the plaza on slightly higher ground, with a church on the highest point. The estimated floor space for these proposed buildings amounted to 15,650 square meters. Offices were planned for the area west of the subway station and also above stores in buildings ranging from two to twelve storeys. The estimated floor space for offices was 40,700 square meters. A small area in the southern part of the center was intended for small repair shops with a total estimated floor space of 28,750 square meters.²⁴ It was impossible to determine how these estimates were arrived at, and even one of the present city planners of Stockholm and the director of Svenska Bostäder were unable to explain their derivation.²⁵

It was further proposed that fifteen high-rise apartments should surround the center, architecturally emphasizing the focal point of the community. The shopping

²⁴ Loc.cit.

²⁵ Pers. comm., J. Stäck, Stadsbyggnadskontoret, Stockholm, and A. Aronsson, Svenska Bostäder, Vällingby. Note: Svenska Bostäder is the construction firm which built three-quarters of the center.

plaza would be reserved for pedestrians, with streets generally designed along the outer fringe of the center. Some 200 cars were anticipated to find parking on these streets, while off-street parking would be provided for another 200 cars. Delivery streets for the stores and offices would be in the "basement" of the center.²⁶

The approximate positions and sizes of buildings were indicated by the city planners, but some scope was allowed for changes by developers. Significant changes were not anticipated, however, because almost the whole center was to be built by the municipally-owned construction firm, Svenska Bostäder, which intended to develop 10,000 square meters of retail floor space in the first stage, divided into some 50 shops in five major buildings. The success of stage one would dictate the timing of the next stage.²⁷ The types of shops and offices which would rent space in the community center were to be decided by the directors of Svenska Bostäder. A small amount of retail space, about 3,000 square meters, would be built by other firms under similar arrangements.

In 1952 there were only nine prospective tenants for office space in the center, and they required only 10,000 square meters, but two years later the requests had increased to 48. In addition, space had been requested for numerous

²⁶ Stockholms Stads Stadsplanekontor, Archives, Stadsplan Vällingby II, Stockholm, April 6, 1951, op.cit., pp. 1-7.

²⁷ Svenska Bostäder, Archives, Vällingby file, "Affärslokaler", Vällingby. (mimeographed, n.d.)

public and private service establishments, such as a telephone station, a post office, a pharmacy, restaurants and laundries.²⁸

What were the economic prospects for retail and service firms at Vällingby? In 1954, when construction had already begun, a survey was undertaken by Svenska Bostäder to establish the existing and future purchasing power of the households at Vällingby. The planned number of households was approximately 8,120, and the average household income after income tax deductions was estimated to be 10,400 Swedish crowns. The net income for all Vällingby households would thus be about 84.5 million Swedish crowns, of which 61.2 million could be expected to be spent on items that could be purchased at the shopping center, based on the breakdown of expenses for an average family according to the cost-of-living index of 1953 prepared by the National Social Board (Socialstyrelsen). The corresponding figures for the Vällingby umland were estimated at 161 million crowns (net income) and 114.9 million crowns (expenditure money). It could not be ascertained how large a proportion of this would actually be spent at Vällingby, but it was anticipated that much of it would.²⁹ After making allowances for housing costs, an estimate of 115 million crowns was derived which provided the frame for calculating potential spending at various groups of stores.

²⁸ Svenska Bostäder, Archives, Vällingby file, "Spekulanter på Kontorslokaler", Vällingby, 1952. (mimeographed)

²⁹ Svenska Bostäder, Archives, Vällingby file, "Köpkraftsberäkningar för Vällingby med omnejd", Vällingby, 1954. (mimeographed)

TABLE 2:
POTENTIAL PURCHASING POWER OF VÄLLINGBY CUSTOMERS

Foodstuffs	59,000,000	Swedish crowns
Clothes and shoes	22,000,000	"
Furniture and draperies	5,600,000	"
Electrical equipment, toiletries and drugs	6,000,000	"
Vehicles	5,600,000	"
Tobacco, wine & spirits	8,000,000	"
Others	8,800,000	"
TOTAL	115,000,000	Swedish crowns

Source: T. Söder, Vällingby, Vällingby 1963, p. 4 (mimeographed).

These estimates could give some guidelines as to the composition of the commercial area, but equally important was the demand for commercial space by individual firms. In the early stages of the planning of Vällingby there was considerable reluctance on the part of some retailers, such as those selling ladies' wear, furniture and books, to locate their stores outside the Central Business District. A. Aronsson himself considered the center a "rather risky experiment".³⁰

The center was intended to have an important commercial function, but it was hoped that people would also be attracted by the cultural and social facilities offered there. A library planned on the fringe of the community

³⁰ Pers. comm., A. Aronsson, Svenska Bostäder, Vällingby.

center was intended to serve the whole Vällingby area, and would initially contain about 25,000 books. A theatre and a cinema were included to bring people to the center even after shops were closed for the day. The theatre planned for Vällingby was to be the first of its kind outside the city center. The young people would have their own gathering place with the construction of a youth center, while adults could meet in a civic assembly building that could be rented by any association in the area.³¹

Among social and professional service institutions planned to be built at the community center were a public dental clinic, a medical insurance office, a child care clinic, district health and medical clinics, a welfare office and a labor exchange.³²

There were no previous examples in Stockholm of this type of community center where commercial, cultural and social facilities would be integrated and built within one limited area.

Residential Development

The survey of dwelling preferences conducted in 1946 to 1947 had shown that only a small proportion of the families in the sample wanted to live in suburban apartments

³¹ Svenska Bostäder, Archives, Vällingby file, Vällingby, 1954. (mimeographed)

³² Stockholms Stads Fastighetsnämnd, Räcksta - Vällingby, Stockholm, 1952, pp. 6-7.

as their first choice, whereas 51 percent of the families wanted to live in suburban single family homes (refer to Chapter 1, pp. 6-7). As has already been mentioned, however, there were other factors favoring high densities, and these dictated the proportions of dwelling types which were planned for Vällingby (Table 3).

TABLE 3: TYPES OF DWELLINGS PLANNED FOR VÄLLINGBY

	Percentage of inhabitants	Percentage of households*
Apartments	84 %	89 %
Row houses	11	7
Single family houses	5	4
TOTAL	100 %	100 %

* Assuming an average occupancy rate of 2.7 persons for apartments and row houses, and 4.0 persons for single family houses.

Source: Stockholms Stads Stadsplanekontor, Beskrivning till Förslag till Ändring och Utvidgning av Generalplan för Södra Spånga, Stockholm, 1952, pp. 1-2.

All residential development was to be built within a radius of 900 meters from the subway station, with gradually increasing density towards the central point. Apartment blocks were planned within 500 meters of the subway station on 58 percent of the total residential land, and row houses outside this 500 meter zone on 22 percent of the land, leaving 20 percent for single family dwellings on the outskirts of the two neighborhoods, Räcksta and Vällingby which

would each have a subway station.³³ The residential densities for Vällingby were planned to be approximately the same as those of Stockholm in general, with 333 inhabitants per hectare in apartment blocks, 120 inhabitants per hectare in row houses and 61 per hectare for single family houses. Thus about 19,300 persons would live in apartments, 2,600 in row houses and 1,200 in single family dwellings. The high percentage of row houses is amazing considering their scant popularity at the time. Both in the General Plan for Stockholm and in several of Markelius' works this type of dwelling has been strongly emphasized.³⁴ Obviously the planner's preference for this type of accommodation was strong and he wished to influence the public to consider row houses as an alternative to single family homes, which were usually more expensive and required more land.

Industrial Areas

It was early realized that no large industrial area could be planned for Vällingby. The reason was that it lacked railroad connections, and new railroad construction was not considered. When the whole development was still at a planning stage, a preliminary enquiry was sent out to some firms (the number and kind are now unknown), asking about

³³ Stockholms Stads Stadsplanekontor, Beskrivning till Förslag till Ändring och Utvidgning av Generalplan för Södra Spånga, op.cit., pp. 1-3.

³⁴ S. Markelius, "Stockholms Struktur", op.cit., p. 65.

attitudes towards locating at Vällingby. According to G. Agrenius' statement in a City Council meeting in 1950, the result had been negative.³⁵ This could have further indicated to the planners that only small industrial areas should be allocated.

Two years later the interest was greater, but it was apparent that most firms would be unwilling to move to the new community as long as they would have to build their own factories.³⁶ At that time there were strong restrictions on industrial construction in the city, and it was not at all certain that building permits would be obtained for industrial development in Vällingby. At about the same time, special levies on investment were introduced and mortgage conditions for industrial premises were restrictive. The climate for industrial development was far from promising.³⁷

As the opportunities for private development were considered to be small, it was decided that the municipally owned firm Korphoppet should construct and administer the first of five planned industrial buildings in the block called Vagnhallen, in the Räcksta industrial area adjacent to the subway depot. The space was to be let to private industrial enterprises. The buildings were planned to be constructed so that they could be used by firms of different

³⁵ Stadskollegiets Utlåtanden och Memorial, Motion 1/50, Stockholm, 1950.

³⁶ Pers. comm., A. Aronsson.

³⁷ Stadskollegiets Utlåtanden och Memorial, Utlåtande 209/52, Stockholm, 1952.

sizes. Each of the premises would have about 6,000 square meters in a four-storey construction including the basement. The rent was to be a little higher than normal. Not until experience from this first industrial building had been attained would the plans for the remaining part start to be realized.³⁸ The largest part of the Råcksta industrial area would, however, be taken up by the subway depot, intended for minor repair and maintenance work as well as for the storage of subway cars. Construction was to start as soon as the plans were completed.³⁹

The much smaller industrial area at the Grimsta neighborhood was not discussed in any detail.⁴⁰ A land parcel of 1.1 hectare was reserved for small industrial enterprises. As no public development was planned for this strip of land, it is understood that this was left for private development.

An effort was made to obtain additional information about the industrial planning for Vällingby, particularly concerning labor force predictions, but the Director of the Industrial Bureau at Stockholms Stads Fastighetskontor has intimated that neither an investigation nor any planning proposals of such a detailed kind were ever made for Vällingby.⁴¹

³⁸ Loc.cit.

³⁹ Pers.comm., J. H. Andersson, Stockholms Spårvägar, Stockholm.

⁴⁰ Stockholms Stads Stadsplanekontor, Archives, Stadsplan Grimsta I, Stockholm, March 26, 1952, Stockholm, 1952, p. 2.

⁴¹ Pers.comm., J. H. Martin, Industribyrån, Stockholms Stads Fastighetskontor, Stockholm.

One aspect of industrial development which was stressed, however, was the aim of achieving a simultaneous development of residential and industrial areas.⁴² The construction of the first industrial building by Korphoppet could be seen as one step towards securing this goal.

Proximity Between Work-place and Residence

The principle of dispersing work-places from the inner city to outlying areas was proposed in the Stockholm General Plan. Decentralization of industrial establishments, some public administrative departments and public institutions would hopefully lessen the strain on urban transportation means. From a transport-economic point-of-view, a dispersal of the work-places would minimize daily travelling time between home and work, while the higher utilization of transport facilities through a two-way travel flow during peak hours would keep transportation costs down.⁴³

For the wage earners, the convenience of living within walking distance of their places of work was particularly stressed in the information pamphlets about Vällingby:

"To work close to one's residence and to be spared the long and boring commuting trips which take away a good part of leisure time must be somewhat of an ideal for most people. In a 'Work-Live-Center' like Räcksta-Vällingby this will come true".⁴⁴

⁴² Stadskollegiets Utlåtanden och Memorial, Utlåtande 209/50, loc.cit.

⁴³ Stockholms Stads Stadsplanekontor, Generalplan för Stockholm, 1952, op.cit., pp. 239-284.

⁴⁴ Stockholms Stads Fastighetsnämnd, Räcksta-Vällingby, op.cit., p. 14.

The aim of the planners was to provide jobs within the area for approximately 50 percent of all Vällingby wage-earners. Since the number of wage-earners was estimated at 10,000, the aim was to provide approximately 5,000 jobs in the area.⁴⁵ How the proportions between different kinds of jobs would be allotted, was not clearly defined. The only information that has been found is in the above-mentioned information pamphlet, where it is stated that three main groups of jobs (industry, retail, offices) would have approximately equal shares.⁴⁶ The expression "equal shares" probably referred to numbers of workers, as an accompanying sketch map clearly showed a very uneven spatial proportion between the three types. However, this included an industrial estate of 200 hectare outside Vällingby as defined in this paper. Very roughly, these three main groups might have been anticipated to employ 1,500 to 1,700 persons each. Exactly why 5,000 jobs was the number aimed at is uncertain.

The policy of attaining proximity between workplace and dwelling was to be encouraged by offering employees of firms which moved to Vällingby, accommodation within the area.⁴⁷ This could be a very strong inducement for firms to locate their activities in the new community, as the dwelling shortage was the outstanding problem of Stockholm.

⁴⁵ Svenska Bostäder, Vällingby, Stockholm, 1966, p. 22, and Pers. comm., J. Stäck.

⁴⁶ Stockholms Stads Fastighetsnämnd, Räcksta-Vällingby, op.cit., pp. 14-15.

⁴⁷ Stadskollegiets Utlåtanden och Memorial, Utlåtande 179/52, Stockholm, 1952.

Another means of achieving the same goal was to plan as far as possible for a variety of jobs, so that most employees would find their occupation represented. The complex composition of the community center with its social, cultural and commercial facilities, would offer a wide range of jobs. A hospital, medical center, schools, subway and industrial enterprises would provide opportunities for employees in many different fields. A variety of dwelling types would also make it easier for an employee to find a suitable dwelling within walking distance from work. It was hoped that gradually a balanced distribution of dwellings and work-places would be achieved.⁴⁸

The timing of the development of the community was considered an exceedingly important matter. It was emphasized that the establishment of industries and public and commercial facilities should be matched simultaneously with residential development, in order that integration of work-places and dwellings could be accomplished.⁴⁹ In 1951, a special delegation was set up by City Council to deal with matters concerning the Vällingby development. Some of its tasks were to be:⁵⁰

⁴⁸ S. Markelius, "Stockholms Struktur", op.cit., p. 53.

⁴⁹ Stadskollegiets Utlåtanden och Memorial, Utlåtande 179/52, loc.cit.

⁵⁰ Loc.cit.

- 1) to co-ordinate the development of residential, commercial and industrial facilities;
- 2) to plan for the differentiation of residential development (encourage a variety in types of dwellings);
- 3) to find means of providing dwellings in Vällingby for employees in the area;
- 4) to stimulate commerce and industry within the area;
- 5) to advance the planning of industrial development;
- 6) to stimulate public institutions to locate in Vällingby; and
- 7) to provide an information service.

Education

It was appreciated that school facilities would have to be provided from the very beginning, if the community was to attract Stockholm families. One elementary school site was reserved in each neighborhood in a fairly central position, in order to minimize the walking distance (maximum 700 meters) for each pupil. Wherever possible, the schools were so placed that most pupils could reach them on walkways without crossing busy streets.⁵¹ The approximate locations of the school sites were indicated on the proposed land use map (Figure 3). In the Vällingby and Räcksta neighborhood schools,

⁵¹ 110/52, Stadskollegiets Utlåtanden och Memorial, Utlåtande Stockholm, 1952.

there were also to be classrooms for junior high grades, while the Vällingby high school, planned adjacent to the community center, would offer education from grade seven to matriculation. This school was to serve the neighboring community of Hässelby Gård as well.

The calculations of the numbers of school children were based on the assumption that the total population would be 24,000. In a static community the average number of children in each age group had been found to be 1.5 percent of the total population, according to a survey made in 1947 by the Statistical Office of Stockholm.⁵² It was decided that even if Vällingby would hardly be classified as a static community the average figure would be the base upon which the estimates of the classroom needs would be made.⁵³ (Table 4)

TABLE 4: PLANNED NUMBER OF CLASSROOMS IN VÄLLINGBY SCHOOLS

School	Grade 1-3	4-6	7-9	10-12/13	Total
Vällingby	15	13	12	-	40
Grimsta	17	15	-	-	32
Råcksta	14	11	10	-	35
Vällingby high school	-	-	16	12	28
TOTAL	46	39	38	12	135

Source: Stadskollegiets Utlåtanden och Memorial, Utlåtande 110/52, Stockholm, 1952.

⁵² Stockholm Stads Statistiska Kontor, "Skolorna i Stockholm", Stockholm Stads Statistik, Dec. 1947, pp. 25-27.

⁵³ Stadskollegiets Utlåtanden och Memorial, Utlåtande 110/52, loc.cit.

Note: The Public School Board of Stockholm plans the new schools but the City Council has the final decision on their construction.

The neighborhood schools were all to be completed between 1953 and 1954, except for the Grimsta school, which would possibly be delayed until 1955, since this neighborhood was to be completed later than the other two.⁵⁴ The high school was not planned to be completed until the late 1950s.⁵⁵ There were also sites reserved for a technical school, a teachers' training college, a girls' high school, but no further information was available about them. A total area of 16.8 hectare (about 41.5 acres) was laid out for schools, representing about three percent of the total area.⁵⁶

The plans for the schools were much more detailed than for the other services which this new community was to provide. The reason was that the schools were a public responsibility and the plans had to receive the approval of the City Council. Therefore it has been possible to obtain more information about them than about the other community services which were mostly left to private or semi-public development firms that did not have to give reasons for their decisions, as long as the general planning proposals were followed and their financial situation was sound.

The need for creches and kindergartens had been subject to a Stockholm-wide study in 1951 by Socialvårdens

⁵⁴ This reference is the only one that indicates any staging of development of the three neighborhoods.

⁵⁵ Stadskollegiets Utlåtanden och Memorial, Utlåtande 110/52, loc.cit.

⁵⁶ Stockholms Stads Stadsplanekontor, Beskrivning till Förslag till Ändring och Utvidgning av Generalplan för Södra Spanga, op.cit., p. 4.

Planeringskommitte (Social Planning Committee). Based on the assumption that the number of preschool children would form a large proportion of the total population in suburban communities, a great need for creches and kindergartens was foreseen.⁵⁷ The proposals for Vällingby included ten such preschool institutions, centrally located within building groups.

Outdoor Recreation Plans

One of the major points in the propaganda about Vällingby, was the stress on the abundance of open space and recreational facilities. The difference between life in a "stone city" and Vällingby was used in the aforementioned pamphlet about the community. The rhetorical question, "Would you like to be able to enjoy sun, air and vegetation in beautiful recreation areas in the vicinity of your home?" was asked to stress some undeniable advantages that would be attributed to the new community.⁵⁸

In the plan a great deal of open space was actually provided. Of a total area of 485 hectare, as much as 379 hectare (or 78 percent) was reserved for open space. Open space included sports grounds, parks, the Grimsta reserve,

⁵⁷ Stadskollegiets Utlåtanden och Memorial, Utlåtande 465/52, med Bilaga 38, Stockholm, 1952.

⁵⁸ Stockholms Stads Fastighetsnämnd, Räcksta-Vällingby, op.cit., p. 1.

a cemetery and streets.⁵⁹ Remarkably enough, streets were included under the category of open space. The large areas reserved for a hospital and schools, however, were excluded.

Three sports fields were planned to cover 14.4 hectare altogether. These sites were intended specifically for different sports activities such as soccer and running, and would be fenced in and equipped with dressing rooms. On the other hand there were parks that were not to be developed for any specialized activities. Building groups would be laid out around such parks with local walkways leading through them to schools, nurseries and playgrounds. There were also plans for parks where natural vegetation would be maintained. Besides their recreational use, these wooded parks would be exploited for their contrasting effect -- the natural versus the cultural environment. They also contained several of the historical graves which were to be preserved wherever possible.

In 1935 the Grimsta area had been noted for its peculiar rock formations and its undefiled nature by an organization called Skönhetsrådet, or the committee for preserving areas of outstanding natural beauty. The following year, an area of 180 hectare was designated as a natural reserve by the Stockholm regional planning commission.⁶⁰

⁵⁹ Stockholms Stads Stadsplanekontor, Beskrivning till Förslag till Ändring och Utvidgning av Generalplan för Södra Spånga, op.cit., pp. 3-4.

⁶⁰ 382/50, Stadskollegiets Utlåtanden och Memorial, Utlåtande loc.cit.

It was planned for several recreational activities such as horseback riding, walking, shooting, skiing and cross-country track-finding (a popular sport in Sweden). A dense network of walkways within the recreation area was suggested to make all parts accessible for these different uses. The two-and-one-half kilometer long shoreline on the Lake Mälaren would offer additional recreational opportunities, and such activities as swimming and boating would be possible. Access from surrounding neighborhoods was to be restricted to walkways, and no roads would penetrate into the reserve.

PART II

IMPLEMENTATION OF THE 1952 PLAN,
AND MODIFICATIONS TO AND DEPARTURES FROM IT

CHAPTER 4

POPULATION AND HOUSINGIntroduction

Vällingby has become known to an international public as a well-planned community and is still visited almost every day during the summer months by town planners, architects, civil engineers and other interested persons from all over the world.¹ This second part of the study will deal mainly with the fulfillment of some planning goals and the planned and unplanned changes that have occurred in the process. An effort will be made to trace the reasons for the changes, as well as to evaluate their consequences. The revised plan of 1952 will provide the main basis for comparisons of land use distribution, although many of the basic ideas are contained in the plan of 1949. In addition, many detailed plans for individual building blocks were gradually being prepared by the City Planning Office to give more specific information before actual construction started. These detailed plans with accompanying descriptions, contained information about restrictions on land use and technical data such as minimum distances between buildings, permitted ground coverage and heights of buildings. Sometimes these

¹ Pers. comm., J. Stäck, Stadsbyggnadskontoret, Stockholm.

detailed plans did not conform completely to the planning proposals and the reasons for change are occasionally contained in these documents.

The Emerging New Community

Construction of the new community started in 1951, when the revised planning proposals were still being prepared. By the fall of 1952, a few buildings in the Räcksta neighborhood were ready to be shown to the public at an exhibition and information week. At the same time, the construction of the community center and the subway were underway, though the industrial areas were still in the planning stage.² As mentioned earlier, a highway connected central Stockholm with Vällingby even before any plans were made for the new community, and an early start to the building program was therefore possible. Building materials could be transported to the site, and the first occupants would have connections with other parts of Stockholm.

The subway was opened for passengers in October, 1952, and the Spånga subway depot opened at the same time on a site covering 100,000 square meters or approximately the site reserved for this purpose in the plans. For four years Vällingby was the terminus of the subway line. Around the two subway stations at Vällingby, apartment blocks were

² Stockholms Stads Fastighetsnämnd, Vällingby, Stockholm, 1952, pp. 10-16.

constructed, surrounded by concentric zones of decreasing density. The community center came into use in 1954 on the planned site. At this time slightly over half of the dwellings had been completed, and construction was proceeding on the Räcksta, Vällingby and Grimsta sites simultaneously. Buildings were eventually erected on the planned industrial and school sites, but in 1955 there were only four industrial premises as compared with eleven when the whole area had been built up. Schools also lagged behind residential development. Only the Räcksta school was constructed on schedule, while all the others were two or more years late.³ The differentiated street pattern corresponded to the plans, but these had shown only major and collector streets. Local streets were planned as development progressed.

The general land use distribution of Vällingby in 1965 corresponded very closely to the planning proposals of 1952. The teachers' training college, some row houses and a building for repair and service shops were replaced by several apartment blocks, but these were minor changes which cannot detract from the impact of the general realization of major land use proposals. The close correspondence between planned and actual achievements with regard to the physical structure of Vällingby was attained mainly because the whole program was started immediately and completed within a short time span.

³ Pers. comm., E. Engquist, Stockholms Skoldirektion, Byggnadsavdelningen.

Housing Development

Population growth in Vällingby was a direct reflection of the rate of completion of housing units. As the housing demand in Stockholm was greater than the supply, dwellings at Vällingby were mostly occupied as soon as they were completed.⁴ Since the supply of dwellings was the primary factor in accounting for the growth rate of Vällingby, housing trends will be discussed before population.

The construction of the three neighborhoods advanced rapidly; in 1953 alone, the most productive year, 2,053 dwellings were erected. By the end of the following year, close to 50 percent of all dwellings had been completed, and by the middle of 1956 the proportion had risen to 75 percent. After 1958, production slowed considerably and in 1959 only 155 new units were completed. In 1963 the total number of dwellings reached 7,300 units.⁵ Detailed information on the construction program is shown in Table 5.

⁴ Pers. comm., A. Aronsson, Svenska Bostäder, Vällingby.

⁵ Stockholms Stads Statistiska Kontor, "Bostadsbyggandet", Stockholms Stads Statistik, Statistical tables, 1952-1963, Stockholm, 1953-1964.

TABLE 5: NUMBER OF DWELLING UNITS COMPLETED EACH YEAR

Year	Vällingby	Råcksta	Grimsta	Totals
1952	290 units	646 units	n/a*	936 units
1953	864	1096	93 units	2053
1954	1007	1	946	1954
1955	852	22	30	904
1956	386	5	2	393
1957	111	-	180	291
1958	94	108	360	562
1959	74	81	-	155
1960	48	-	-	48
1961	8	-	-	8
1962	5	-	-	5
TOTAL	3,739 units	1,959 units	1,611 units	7,309 units

* n/a - Not Available

Source: Stockholms Stads Statistiska Kontor, "Bostadsbyggandet",
Stockholms Stads Statistik, Statistical tables,
 1952-1962, Stockholm, 1953-1963.

The main construction periods almost coincided for each of the three neighborhoods, and no staging of one neighborhood after another can be distinguished, only a gradual decline of housing production after 1954. The increase in production during 1957 to 1958 at Grimsta is related to changes in the plans, whereby an area originally designated for row housing was built up with apartment blocks. All three areas registered 1953 or 1954 as the most active year of construction, and there was thus simultaneous building

activity all over Vällingby. In the Vällingby neighborhood, however, the areas with single-family dwellings, as well as some of the high standard row houses, were not developed until after the completion of most other parts of the neighborhood. The reason for this delay is now known, but possibly it can be related to the fact that a large proportion of the detached and row houses are privately owned. Comparatively few dwellings are privately owned in Vällingby; in 1960 only 732 out of 6,880 units were owned by individuals, while an additional 754 units were owned by associations of occupiers of row houses or duplexes. All other dwellings were owned by national, municipal or semi-public bodies.⁶

Population

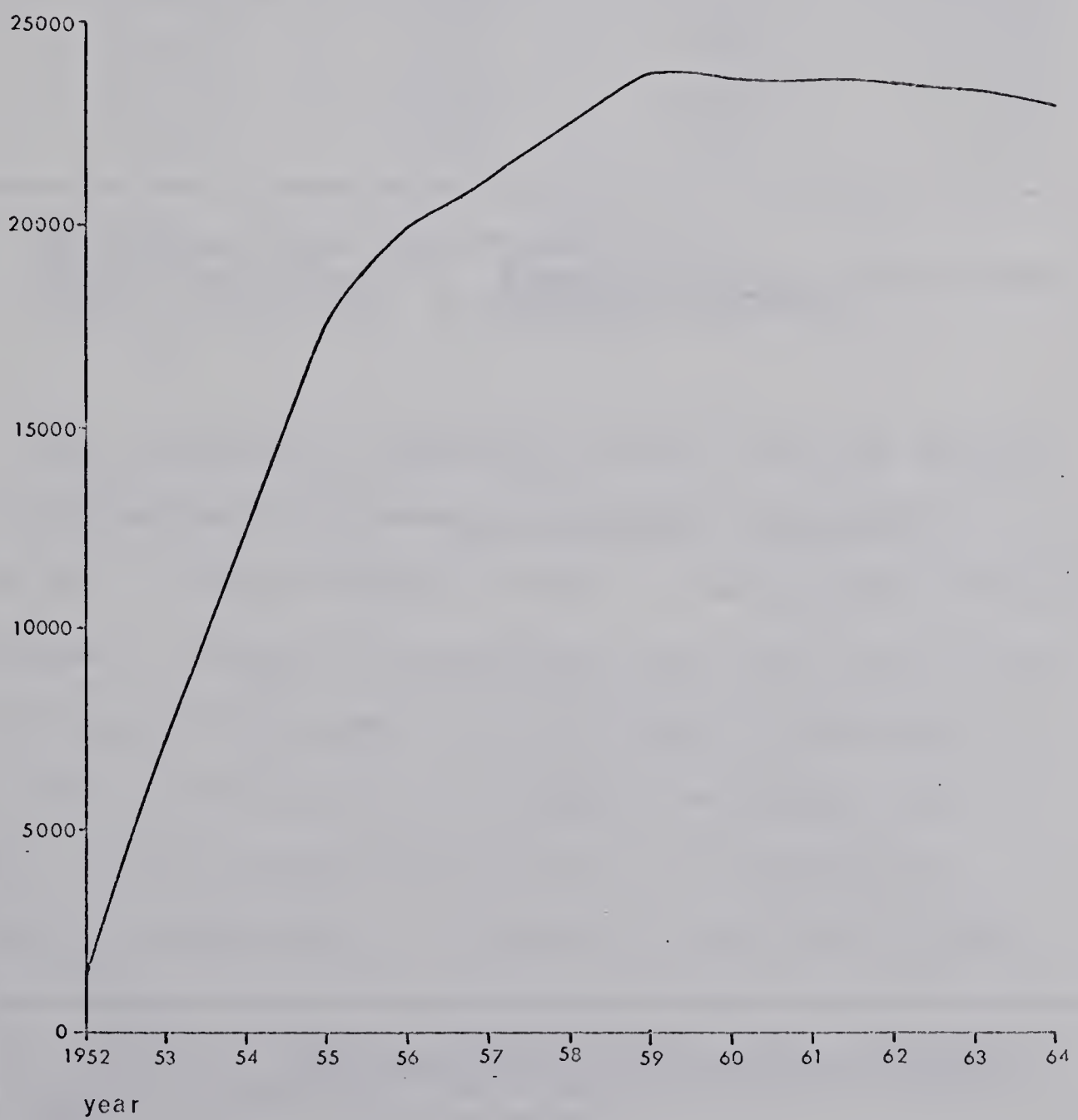
The largest population increase occurred between 1952 and 1955. Over the next three years, the growth rate slowed considerably, and 1959 stands out as the year of maximum total population, with 23,816 inhabitants. Thereafter there was a slow decrease to 23,018 in 1964. The population growth is illustrated in Table 6 and in Figure 4.

⁶ Statistiska Centralbyrån, Folk-och Bostadsräkningen 1960, Bostadslägenheterna efter Ägare, Hustyp och Byggnadsår, Table 9, (unpublished computer lists).

POPULATION GROWTH of VÄLLINGBY

1952 - 1964

inhabitants



Source: see table 6.

AR- 68

TABLE 6: POPULATION GROWTH OF VÄLLINGBY

Year	Vällingby	Råcksta	Grimsta	Total
1952	597	660	14	1,271
1953	2,196	5,089	31	7,316
1954	5,000	5,645	1,773	12,418
1955	8,701	5,797	3,239	17,737
1956	10,086	6,462	3,363	19,911
1957	10,674	6,534	3,994	21,202
1958	11,051	6,545	4,911	22,507
1959	11,438	7,044	5,334	23,816
1960	11,392	7,022	5,314	23,728
1961	11,282	6,988	5,312	23,582
1962	11,247	6,993	5,262	23,502
1963	11,171	6,945	5,208	23,324
1964	11,021	6,795	5,202	23,018

Source: Stockholms Stads Statistiska Kontor, "Åldersfördelningen", Manadsstatistik, Statistical tables, 1952-1964, Stockholm, 1952-1964.

The decrease in population after 1959 was mainly due to a "thinning-out" process, noticeable throughout Stockholm and in other Swedish cities.⁷ The process resulted in a decreased residential density per room unit, and in the case of Vällingby was caused by a decrease in the number of children and the construction of larger dwellings. New residential areas around Stockholm had accommodated an exceptionally large number of children during their early

⁷ G. Lindman, "Growing Space Needs in the Urbanized Region", paper presented at the IFHP Conference in Örebro, June 29, 1965, pp. 7-8 (mimeographed).

years, because of the influx of young and newly formed families with high birth rates. This created a "population wave", consisting of a large concentration of children within a limited age range. The birth rate was high, while the residential areas were being built, and declined to an average of approximately 14 births per 1000 population after about ten years.⁸ The following figures for 0-1 year old children at Vällingby illustrate this trend.

TABLE 7: CHILDREN 0-1 YEAR OLD PER THOUSAND POPULATION
1952-1964, IN VÄLLINGBY

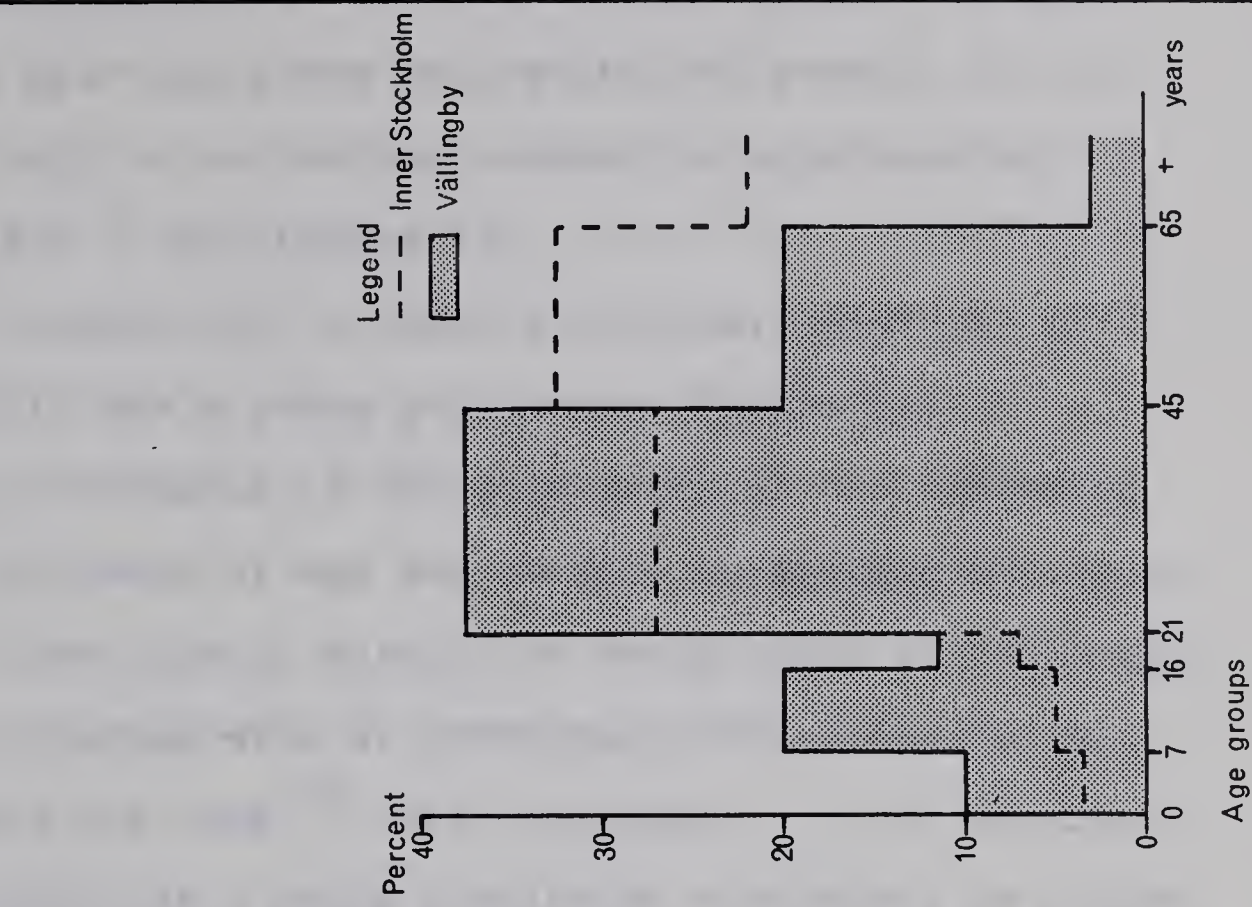
Year	Infants/1000 pop.	Year	Infants/1000 pop.
1952	51	1959	20
1953	50	1960	17
1954	39	1961	15
1955	34	1962	14
1956	30	1963	13
1957	26	1964	14
1958	24		

Source: Stockholms Stads Statistiska Kontor, "Relativa Åldersfördelningen", Stockholms Stads Statistik, Statistical tables 1952-1964, Stockholm, 1953-1965.

Another group which has formed an exceptionally high proportion of the total population is that of the 21 to 45 year old persons. They accounted for approximately 53 percent of the population in 1955. Since then there has been a trend towards a levelling out of the extreme figures to a

⁸ Stadskollegiets Utlåtanden och Memorial, Bihang 87/58, Stockholm, 1958.

**Relative age distribution in Vällingby
and inner Stockholm in 1964**



**Relative age distribution in Vällingby
in 1955 & 1964**

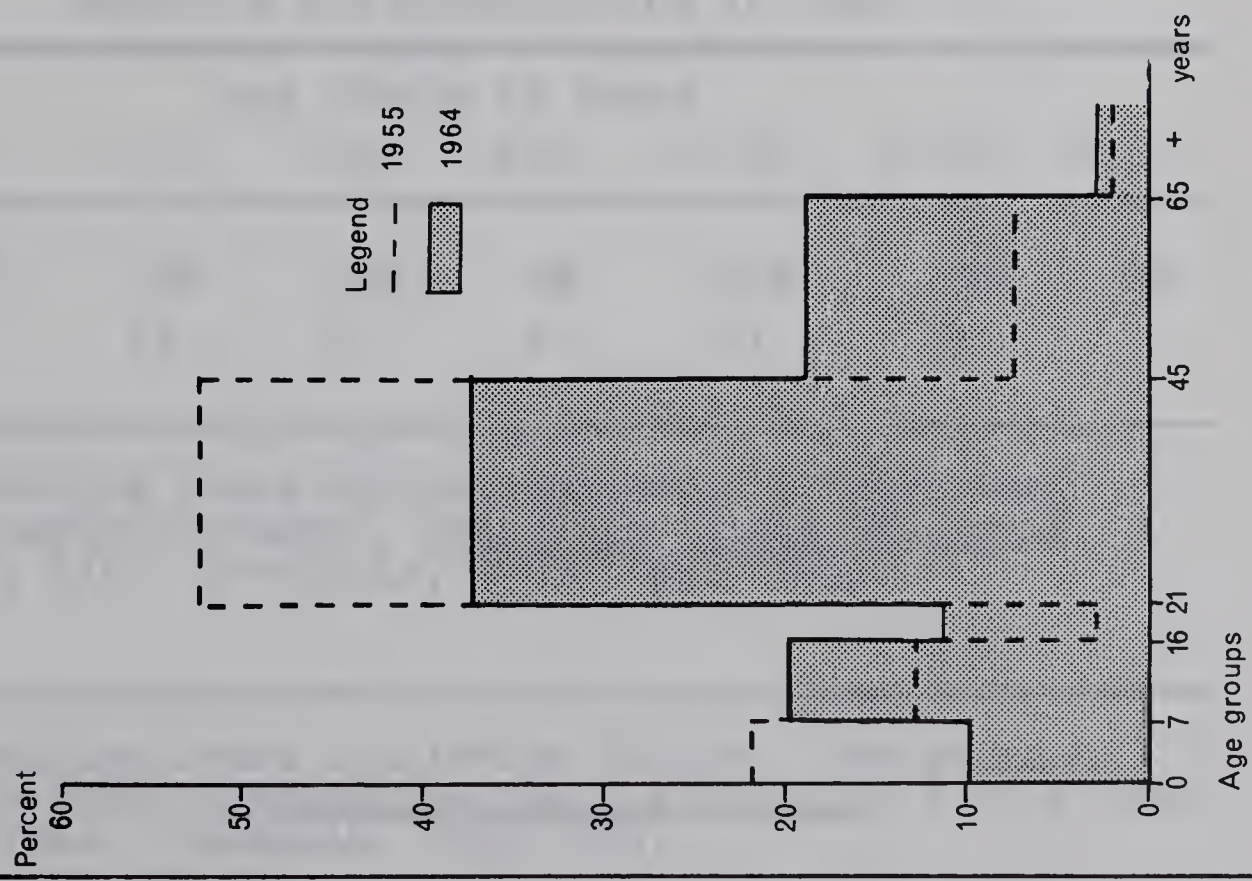


Figure 5

position more comparable with other urban areas. In 1960 the 21 to 45 year age group represented 44 percent of the population, only to be further reduced to approximately 38 percent in 1964 ⁹ (see Figure 5).

In comparison to inner Stockholm, however, Vällingby still has a young population (Figure 5). Particularly noticeable is the difference in the number of old people (65 years of age and over). No special provision was made for the elderly during the early years of Vällingby, but a recent program aims at providing five percent of all dwelling units for them.¹⁰ Even compared to other suburban areas, Vällingby has a young population structure, as illustrated by the percentage distribution of persons per age group in 1962 (table 8).

TABLE 8: RELATIVE AGE DISTRIBUTION IN 1962

Area	Age Groups in Years					
	0-7	7-16	16-21	21-45	45-65	65 +
All suburbs of Stockholm	11%	15%	9%	36%	23%	6%
Vällingby	13	21	8	41	15	2

Source: Stockholms Stads Statistiska Kontor, "Relativa Åldersfördelningen", Stockholms Stads Statistik, table 8/62, Stockholm, 1963, pp. 51-52.

⁹ Stockholms Stads Statistiska Kontor, "Relativa Åldersfördelningen", Stockholms Stads Statistik, Statistical tables 1952-1964, Stockholm, 1953-1965.

¹⁰ Pers. comm., A. Aronsson, Svenska Bostäder, Vällingby.

Residential Densities

No direct information about family sizes is available in Swedish statistics, and the closest approximation is population per dwelling (households). During the period 1954 to 1962, Vällingby had a larger number of persons per dwelling than Stockholm in general (Table 9). An increasing gap developed as Vällingby showed a relatively unchanged number of persons per dwelling in contrast to a decrease in Stockholm as a whole. In 1962, the average household size was thus 3.19 persons in Vällingby, while Stockholm had only 2.44 persons per unit.

TABLE 9: PERSONS PER DWELLING UNIT, 1954-1962

Year	Vällingby	Stockholm
1954	2.89	2.62
1955	3.08	2.59
1956	3.19	2.57
1957	3.23	2.54
1958	3.14	2.53
1959	3.23	2.50
1960	3.20	2.47
1961	3.19	2.44
1962	3.19	2.44

Source: Stockholms Stads Statistiska Kontor, "Bostadsförhållanden", Stockholms Stads Statistik, Statistical tables 1954-1962, Stockholm, 1955-1963.

The greater number of inhabitants per dwelling in Vällingby as compared to the whole of Stockholm does not necessarily mean that people lived in more crowded conditions,

since the size of the dwelling units also affects living conditions. In 1962, the average dwelling unit in Vällingby contained 3.40 rooms (excluding kitchen), compared to 2.96 rooms for Stockholm.¹¹ The difference in size, however, was still not enough to compensate for the larger number of persons per dwelling. The average number of occupants per room has constantly been higher in Vällingby since 1954, as is shown in Table 10.

TABLE 10: OCCUPANTS PER ROOM, 1954-1962

Year	Vällingby	Stockholm
1954	0.92	0.92
1955	0.96	0.91
1956	0.98	0.90
1957	0.98	0.88
1958	0.96	0.87
1959	0.97	0.86
1960	0.96	0.84
1961	0.96	0.83
1962	0.97	0.82

Source: Stockholms Stads Statistiska Kontor, "Bostadsförhållanden", Stockholms Stads Statistik, Statistical tables 1954-1962, Stockholm, 1955-1963.

In fact some overcrowding existed in the new community. Statistical data about overcrowded conditions were available in the 1960 Census in the form of unpublished computer lists. By "overcrowding" was meant more than two persons per room, excluding kitchens. Out of 7,294 households

¹¹ Stockholms Stads Statistiska Kontor, "Bostadsförhållanden", Stockholms Stads Statistik, Table 11, Stockholm 1963.

in Vällingby, 367 or five percent lived in overcrowded conditions. This compares favorably to the national average of close to nine percent. More than 90 percent of all overcrowded households at Vällingby consisted of families with children. In the three neighborhoods of Vällingby, Räcksta and Grimsta, 14.3 percent, 10.2 percent and 9.3 percent respectively of all children lived in overcrowded dwellings,¹² - a far from ideal situation in a "well planned community".

The plans for Vällingby were based on an average density of one inhabitant per room and the actual figure of 0.97 in 1962 is thus in line with the original estimate. But the new suburb did not keep up with the generally increased space standards of the rest of Stockholm, as could be gathered from Table 10.

In spite of the larger number of children than anticipated, the total number of inhabitants in Vällingby amounts to almost exactly the planning estimates. Looking at the individual neighborhoods, however, some differences appeared between plans and actual development. Both Vällingby and Räcksta neighborhoods had fewer inhabitants than the plan suggested, while Grimsta accommodated more. The increase at Grimsta was due to an increased amount of land for apartment blocks at the expense of the planned row houses in the southern part of the neighborhood, and at the expense

¹² Stockholms Stads Statistiska Kontor, "Bostäder och Hushåll i Stor-Stockholm", Stockholms Stads Statistik, Stockholm 1961, pp. 28-35.

of a training college for teachers in the northern part.¹³ In this way the total area for apartments was increased from 11.5 hectare to 19 hectare, and the population increased from the originally intended 3,570 to an actual figure of 5,202 persons in 1964. The residential density as expressed by persons per hectare was slightly lower in 1964 than in the planning proposals.

At Vällingby neighborhood on the other hand, the area planned for row houses was extended from 14 hectare to 18.6 hectare at the expense of single family housing and one apartment site was taken over by a large parkade. The residential density remained relatively unchanged. Finally, at Räcksta there were very few changes - some row house sites were laid out with single family dwellings, and the residential density was somewhat below that of the plan.

Looking at Vällingby as a whole, the actual residential development coincides quite closely with the recommendations of the plan in the total amount of residential land, the distribution of housing types and residential density. Table 11 illustrates the planning estimates as compared to actual development.

¹³ This college was later built on the island of "Kungsholmen" in inner Stockholm.

TABLE 11: PLANNED AND ACTUAL RESIDENTIAL DEVELOPMENT

	Plans of 1952			Actual Development		
	Hectare	Persons	Persons/ hectare	Hectare	Persons	Persons/ hectare
<u>Vällingby</u>						
apartments	29.5	10,550	358	24.1	9,201	382
row houses	14.0	1,530	109	18.6	1,674	90
single family houses	6.7	330	49	2.5	146	58
Sub-total	50.2	12,410		45.2	11,021	
<u>Räcksta</u>						
apartments	17.0	5,450	321	18.6	5,230	281
row houses	6.7	845	126	4.4	620	141
single family houses	14.0	930	66	15.6	945	61
Sub-total	37.7	7,225		38.6	6,795	
<u>Grimsta</u>						
apartments	11.5	3,320	289	19.0	5,202	274
row houses	1.1	250	229	-	-	-
single family houses	-	-	-	-	-	-
Sub-total	12.6	3,570		19.0	5,202	
<u>All of Vällingby</u>						
	Hectare	Percentage		Hectare	Percentage	
apartments	58.0	58 %		61.7	60 %	
row houses	21.8	22		23.0	22	
single-family houses	20.7	20		18.1	18	
TOTAL	100.5	100 %		102.8	100 %	
	Persons	Percentage	Persons/ hectare	Persons	Percentage	Persons/ hectare
apartments	19,320	83 %	333	19,633	85 %	318
row houses	2,625	11	120	2,294	10	100
single family houses	1,260	6	61	1,091	5	60
TOTAL	23,205	100 %	231	23,018	100 %	224

Sources: Stockholms Stads Stadsplanekontor, Beskrivning till Förslag till Ändring och Utvidgning av Generalplan för Södra Spånga, med areal - och befolkningsuppgifter, Stockholm 1952, pp. 1-3, and Stockholms Stads Statistiska Kontor, Mantalskrivna Folkmängden efter Kön, Ålder och Civilstånd inom Församlingar, Stadsdelar och Kvarter, m.m. i Stockholm, Stockholm 1964, pp. 93-95.

The Residential Environment

The social stratification of the Vällingby population is similar to that of Stockholm as a whole, according to A. Aronsson,¹⁴ but the income level is "considerably higher than the average for Stockholm".¹⁵ Due to lack of information this topic has to be discarded with this brief comment, and attention will be focused on the physical characteristics of the residential environment. As suggested in the plan, most high rise towers were laid out not more than 500 meters from the subway stations, while the low density development was arranged in a ring around the high density core. Very few buildings were erected further than 900 meters from the stations. Apartment blocks and row houses were in most cases laid out around a central green area used as a neighborhood park or recreation ground. Particularly in the Vällingby neighborhood various precincts, each arranged around a central green area, could thus be distinguished. Advantage was taken of local relief, so that most towers have been built on the highest ground (usually the best foundation in the area for high buildings), leaving the depressions as open green areas. These central green areas were designed as the focal points of the various precincts and were laid out with playgrounds, kindergartens, sometimes elementary schools and

¹⁴ Pers. comm., A. Aronsson, Svenska Bostäder, Vällingby.

¹⁵ Svenska Bostäder, Vällingby, Stockholm, 1966, p. 3.

local groceterias. A network of walk-ways across the central area tied the various parts of a precinct together, and also linked it with the other precincts and the central commercial area. At the intersections with collector and arterial roads, underpasses or overpasses were often provided.

In spite of all these facilities in the central green areas, and their attractiveness when observed by a visitor (Plates 1 and 2), they have not won the acceptance of the inhabitants, according to J. Stäck. People have complained that the open space is windy and creates additional walking distance for the inhabitants. Particularly during the long winter season, it is felt that the central green is a disadvantage. The central green areas have subsequently been reduced in size in recently planned communities, such as Järvafältet ¹⁶ (refer to Figure 6). The planned street pattern has been implemented with a high degree of traffic segregation (Plate 4).

¹⁶ Pers. comm., J. Stäck, Stadsbyggnadskontoret, Stockholm.

LAND USE in VÄLLINGBY, 1965





Plate 1. The central green area accommodates kindergarten (right corner), playground and pedestrian walkways.



Plate 2. Small playgrounds are mostly found adjacent to each apartment block.



Plate 3. The majority of people in Vällingby live in walk-up apartments.



Plate 4. A high degree of traffic segregation has been achieved. The cyclists are using pedestrian walkway leading to Vällingby High School.



Plate 5. The planners have, in many instances, been successful in their attempts to blend the natural and cultural environment.



Plate 6. A few old buildings have been retained and are now appreciated for their contrasting effect to new development.

No plan can be said to have been successfully implemented, unless the people who live in the community accept it as an attractive place to live. No interviews were undertaken for this purpose, due to necessary time restrictions on the field work. Some social aspects, however, were studied in 1956 by E. Dahlström, a sociologist working for the Governmental Committee for Building Research (Statens Nämnd för Byggnadsforskning).¹⁷ The survey was restricted to families with pre-school children, living in apartment blocks, and no reference was made to the attitudes of all the other inhabitants. These families formed by far the single most numerous group in Vällingby, and their attitudes towards life in this suburb have therefore been considered important. In 1956, there was a general discontent with the accommodation which had been provided and over 55 percent of the survey sample expressed a desire to move. The single most important reason for this, as stated by approximately 45 percent of those interviewed, was that the apartments were too small.¹⁸ When asked if they would rather live somewhere else, about 30 percent answered that they would prefer to live in other parts of Stockholm to Vällingby. The motives for the desire to move varied, but close to 30 percent indicated that they would prefer to live closer to downtown, while another 12

¹⁷ E. Dahlström, "Barnfamiljer i Höghus och Treväningsläghus i Vällingby", Stockholm 1957.

¹⁸ Ibid., pp. 35-36.

percent said that they would like to move to "a better and more pleasant part of town". The long journeys to the city center and to work were the most common complaints.¹⁹

When Vällingby was compared with sample groups in three other suburban areas within Stockholm, it was found that the proportion of people who wanted to move was approximately the same in all areas, even if this point should not be overstressed, since the differing study methods make comparison difficult. However, bearing in mind that Vällingby was supposed to offer a better alternative to suburban living than older suburbs, the degree of acceptance is not too impressive. The proportion of Vällingby inhabitants who wish to move has remained comparatively unchanged. At a "Seminar on New Towns" held in Stockholm in the summer of 1965, it was pointed out that 30 percent of the residents of the suburb wanted to move from Vällingby, often to get a larger apartment. This was considered to be a fairly high degree of acceptance.²⁰

In a city of housing shortage, discontent with accommodation is widespread and usual, but that close to one-third of the population in a newly planned community should be dissatisfied with their housing situation seems rather extraordinary.

¹⁹ Ibid., pp. 38-39.

²⁰ G. Åsvärn, Vällingby ABC Community, paper delivered at "Seminar on European New Towns", Stockholm, August, 1965.

CHAPTER 5

SCHOOLS, PARKS AND RECREATIONSchools

School needs had been projected on the assumption that the average number of pupils in each grade each year would be equivalent to 1.5 percent of the total population of Vällingby. After only a few years, however, the average had grown beyond the estimate and it kept increasing (Table 12). It is evident that the average proportion of

TABLE 12: AVERAGE NUMBER OF PUPILS IN EACH GRADE
 AS A PERCENTAGE OF TOTAL POPULATION
 VÄLLINGBY, 1952-1964

Year	Percentage	Year	Percentage
1952	1.1	1959	2.1
1953	1.1	1960	2.2
1954	1.4	1961	2.2
1955	1.4	1962	2.3
1956	1.7	1963	2.3
1957	1.8	1964	2.2
1958	2.0		

Source: Stockholms Stads Statistiska Kontor,
"Ålderfördelningen", Stockholms Stads Statistik,
Månadsstatistik, Statistical tables, 1952-1964,
Stockholm, 1952-1964.

school children for Stockholm as a whole was not applicable to a new residential area such as Vällingby, where the average family was younger and the birth rate higher. In 1958 a School Plan for the western suburbs was therefore prepared by the Stockholm School Organization Committee -- the first detailed school projection ever made in Sweden for a particular area.¹ It was now admitted that average proportions of pupils should not be used for projection purposes, unless modified to suit individual areas.²

In spite of the increasing population and the greater and greater proportion of children of school age, the 1958 School Plan recommended a gradual reduction of the number of classrooms from 1962. The reason given was that the "thinning-out" process would cause a gradual decline in the total number of inhabitants, and thereby also of school children.³ The "thinning-out" process had commenced in other parts of Stockholm, and had also started to affect Vällingby. Nevertheless, the proportion of children in Vällingby was still far above the average for Stockholm suburbs (refer to Table 8).

After a short period of increase in the number of classrooms, it was recommended that a steady decrease should

¹ Stadskollegiets Utlåtanden och Memorial, Utlåtande 150/59, Stockholm, 1959.

² Stadskollegiets Utlåtanden och Memorial, Bihang 87/59, Stockholm, 1959.

³ Loc.cit.

take place in Vällingby, from a high of 161 classrooms in 1962 to 77 rooms in 1975. The period of high demand would be served by portable classrooms, and as a matter of fact all classrooms in the Vällingby neighborhood school were constructed as portable units. Eventually the question will arise of where the children from this neighborhood will attend school, when the portable units are outdated, or if the temporary buildings will be replaced by permanent structures. The elementary school is a central idea in the neighborhood concept and the removal of the school in the largest neighborhood would certainly be a disadvantage for the inhabitants as well as a sign of uncoordinated planning.

Two years after the 1958 Plan, revisions were necessary, as the needs had been underestimated. In 1960, at the time of the revised school plan, 42 percent of all classes in Vällingby were accommodated in portable classrooms, in rented premises outside the schools, provisional rooms in the schools or in shared classrooms.⁴ In the 1960 Plan the classroom provision was increased by approximately nine percent.

The classroom supply in 1965 was 33 percent higher than the original estimate and the number of pupils was 21 percent higher. However, few changes were made to the school sites. The sites reserved for public schools were utilized for their original purposes, each one with a special area for

⁴ Stadskollegiets Utlåtanden och Memorial, Utlåtande 213/60, Stockholm, 1960.

games and recreation. In the Grimsta neighborhood an extension of the site was made necessary by the larger number of pupils. An addition of 9,000 square meters, which had originally been intended for a kindergarten, provided land for portable units.⁵

The area serviced by the Räcksta neighborhood school coincides with the neighborhood unit, but the Grimsta school attracts pupils both from the neighborhood itself and from the southern part of the Vällingby neighborhood.⁶ Pupils from the latter area have to cross the main arterial road on their way to school. At one crossing there is an underpass, but at another place no separation at all is provided. Finally, the school in the Vällingby neighborhood is serving the remainder of the area. In addition, there are four premises which together accommodate 16 temporary classrooms, with a total of 300 pupils. Mostly these rooms are located on the ground floor of apartment blocks, where many of the usual school facilities are lacking.

The Vällingby High School, laid out immediately northwest of the community center, also had to be increased from the original 12 classrooms for senior grades to 23 rooms in 1965.⁷

The time schedules for the construction of the schools were in most cases delayed and the early inhabitants

⁵ Pers.comm., E. Engquist, Stockholms Skoldirektion, Stockholm.

⁶ Idem.

⁷ Idem.

complained about the lack of facilities.⁸ Table 13 compares the planned completion dates with the dates when the schools were actually ready for use.

TABLE 13: PLANNED AND ACTUAL COMPLETION DATES
FOR VÄLLINGBY SCHOOLS

School	Planned Date*	Actual Date**
Grimsta	fall 1954/55	fall 1956
Vällingby	fall 1954	fall 1959
Räcksta	fall 1953	fall 1953
Vällingby High School	late 1950s	fall 1962

* Source: Stadskollegiets Utlåtanden och Memorial, Utlåtande 110/52, Stockholm 1952.

** Source: Pers.comm., E. Engquist, Stockholms Skoldirektion, Stockholm.

With respect to the other schools or colleges which were included in the original plans but never built, very little will be said. The decisions to exclude them from the area were beyond the reach of the planners. A special girls' school on a site adjacent to the Vällingby High School was never built, since it was decided to discontinue this type of school altogether in Sweden. The training college for teachers was erected in a central downtown location instead of at Vällingby. Finally, the technical school might still be built

⁸ Pers.comm., A. Aronsson, Svenska Bostäder, Vällingby.

on the original site, when all authorities concerned have given their approval.

The planning and production of education facilities have been the object of serious criticism and many weaknesses have certainly been noted. Firstly, the planning proposals for Vällingby were concerned only with suitable school sites, and failed to relate the sites to the areas the schools would serve, or to the number of pupils who would attend them. Secondly, a different authority made the projection of future school population and classroom demand, so that school planning was not integrated with the rest of the plan. As a result the neighborhood boundaries and the school catchment areas did not coincide exactly, causing some pupils to cross a main arterial road to get to school. In other words, either the location of the school was not such that the schools would serve all parts of a particular neighborhood, or the schools were not planned for the proper number of children. Thirdly, the original school plan for Vällingby did not contain a time schedule which was related to the population growth. Fourthly, the estimates of school population were too generalized and disregarded the peculiar demographic circumstances which prevailed at Vällingby.

Nurseries and Kindergartens

Similarly, the "population wave" affected the need for pre-school facilities in the form of nurseries and

kindergartens. While the aim had been to provide 120 to 130 places for children in nurseries, there were in the early 1960s some 165 children in attendance.⁹ Kindergarten needs were calculated on the basis of 20 percent of all three to seven year old children.¹⁰ In terms of 1962 population this would have meant that some 417 places should have been available. The actual figure of 390 was reasonably close. It is noticeable that the Social Planning Committee, which estimated the demand for preschool facilities, recognized as early as 1952 that new residential areas would have considerably greater need for these facilities, due to large numbers of children. Although there have been complaints regarding lack of preschool institutions, it must be admitted that the original plans were implemented to a large extent, and that Vällingby does not differ from the rest of the nation in its demand for more nurseries and kindergartens.

Most of the thirteen preschool institutions were built on the central green areas between building groups, but evidently the lack of road access has been found disadvantageous, since the new planning standards published in 1965 by the City Planning Department call for road access to these institutions.¹¹

⁹ Stadskollegiets Utlåtanden och Memorial, Bihang 14B/63, Bilaga 2, Stockholm 1963.

¹⁰ Stadskollegiets Utlåtanden och Memorial, Utlåtande 465/52, Bilaga 38, Stockholm 1952.

¹¹ Stadskollegiets Utlåtanden och Memorial, Bihang 51/65, "Planstandard 1965", Stockholm 1965, p. 59.

Parks and Recreation

"For a long time the Grimsta wood has been used as an excursion area. During the last few years larger and larger crowds of inhabitants from the surrounding communities have been attracted to the beautiful reserve that has the character of natural park and open meadows". 12

This statement was voiced in 1963 in the City Council in connection with possible improvements in the walkway network throughout the reserve. In the summer of 1965 field observations further confirmed that the Grimsta reserve is both well preserved and well frequented. The total planned area (approximately 180 hectare) has been preserved as a natural park, and only recreational development has been permitted. Thus there are now a major sports ground, with track and field facilities, a launching area for boats, beaches for swimming, a shooting range, skiing tracks (cross-country), and stables with an active club for horseback riding, to mention some of the more important facilities.

A larger part of the wooded area with prehistoric graves in the Vällingby neighborhood was to be preserved, compared to the planning proposals, to include the area planned as a girls' school site, since this facility was never built. Local sports and recreational areas were developed as planned, adjacent to the school sites. A proposed indoor recreation hall, also accommodating a swimming pool, was delayed due to mortgage

¹² Stadskollegiets Utlåtanden och Memorial, Utlåtande
234/63, Stockholm, 1963.

difficulties, according to a statement in 1959 in the City Council.¹³ In 1965, this recreation hall was still not built, but the original site, in close proximity to the High School, was still being reserved for it in the expectation that money would be made available one day.¹⁴

The central green areas have been discussed in connection with the section on residential environment. The narrow open space, separating Vällingby from surrounding communities, has been preserved as planned, but has quite erroneously been indicated as "green belts" on an official map by the City Planning Department.¹⁵

As a whole, parks and recreational planning proposals have been successfully implemented, and both residents and visitors appreciate the large and attractive green areas.

¹³ Stadskollegiets Utlåtanden och Memorial, Utlåtande 277/59, Stockholm 1959.

¹⁴ Svenska Bostäder, Vällingby, Stockholm 1966, p. 18.

¹⁵ Stockholms Stads Stadsbyggnadskontor, Stockholm: Blackeberg, Råcksta, Vällingby, Hässelby Gård, Hässelby Strand, Stockholm 1956 (official Stockholm map).

CHAPTER 6

THE COMMUNITY CENTERThe Vällingby Umland

The target population of Vällingby was reached in six to seven years. In 1958, only four years after the opening of the shopping center, there were 22,507 people in the community, and by 1964 there were 23,018 residents within walking distance of the community center. This area includes all of the Vällingby, Räcksta and Grimsta neighborhoods and is often referred to as the primary service area.

The center, however, had also been designed to serve the surrounding communities, some of which were planned and constructed after Vällingby (Figure 7). Therefore, the target population in the anticipated umland of the center was reached later. In 1957 it contained about 65 percent of its estimated target population, and in 1960 it had slightly surpassed its goal, reaching 86,857 persons within its earlier outlined limits. There was an additional increase of 1,417 persons during the following four years.¹ According to Aronsson, the planned umland of

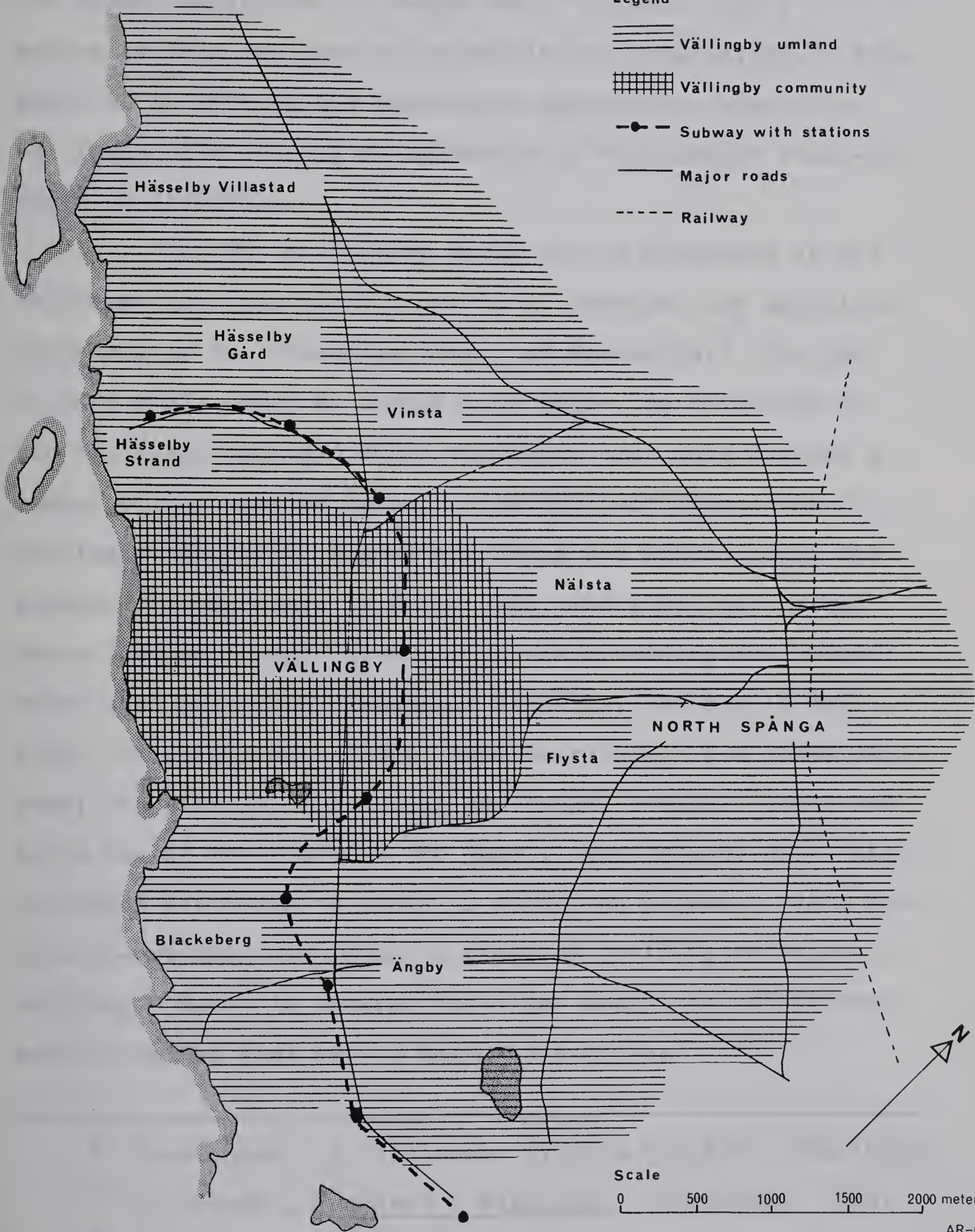
¹ Stockholms Stads Statistiska Kontor, "Mantalsskivna Folkmängden", Stockholms Stads Statistik, Statistical tables 1957-1964, Stockholm, 1958-1965.

Figure 7

VÄLLINGBY UMLAND

Legend

- Vällingby umland
- Vällingby community
- Subway with stations
- Major roads
- Railway



the community center coincides with the actual service area, the reason being that it comprises a "natural area", separated from the rest of Stockholm by "greenbelts".² This again is to stretch the meaning of greenbelts, since the Vällingby area is only an extension of the earlier built-up parts of Stockholm.

In 1957 a thorough study of the customers in the Vällingby area was carried out by L. Persson, now associate professor at the Stockholm School of Economics.³ One part of this study aimed at finding out where the residents of the Vällingby area did their shopping. For this purpose a sample of the married women in the 1957 election lists for Vällingby, Hässelby, Blackeberg, Ängby and North Spånga was chosen.⁴ In February to March 1958, the women were asked where they had bought food during the preceding four weeks; where they had bought household utensils, children's wear, shoes, stockings and ladies' underwear during the preceding year; and finally, where they had bought dresses, coats and suits during the previous two years. The results were mainly published according to types of goods, so Persson's data have been re-arranged according to place of dwelling and place of shopping. Table 14 records the areas where the interviewed women obtained most of the selected articles.

² Pers. comm., A. Aronsson, Svenska Bostäder, Vällingby.

³ L. Persson, Kunderna i Vällingby, Stockholm, 1960.

⁴ Ibid., pp. 60-63.

TABLE 14: SHOPPING HABITS OF WOMEN IN VÄLLINGBY AREA

Most Shopping done at:	Percentage of women shopping in various areas according to place of residence				
	Vällingby	Hässelby	Blackeberg	Ängby	North Spånga
Vällingby center	60 %	37 %	17 %	15 %	18%
Local stores	9	24	36	23	32
CBD of Stockholm	28	37	40	60	38
Elsewhere	3	2	7	2	12
TOTAL	100 %	100 %	100 %	100 %	100%

Source: L. Persson, Kunderna i Vällingby, Stockholm 1960, pp. 123-132.

Note: "Hässelby" includes Hässelby Gård, Hässelby Strand, Hässelby Villastad.

Quite naturally, the Vällingby population showed the highest percentage of customers at the community center, while the local stores (neighborhood shops) were relatively unimportant. For Hässelby residents, the Vällingby center and the Central Business District were of equal importance, despite the fact that Hässelby is the furthest residential area from inner Stockholm. Hässelby also showed the second highest percentage of customers at Vällingby center which could be explained by its good transportation facilities to Vällingby and its longer distance to the city center than the other communities which were examined. Blackeberg, being closer to the inner city, had a larger percentage of customers

to the Central Business District and also to local stores, which are fairly numerous and varied in this community.⁵ Ångby showed the largest proportion of customers buying most of their goods in the Central Business District, and the smallest proportion at the Vällingby center. This could be interpreted as a result of its location closest to inner Stockholm and its age, since it is likely that many of the occupants of this older residential area had already established certain shopping habits before Vällingby was built. North Spånga showed similar conditions to Blackeberg, but with a somewhat higher proportion of customers who travelled to areas outside both Vällingby and the inner city. This was a result of its proximity to Sundbyberg, an independent town immediately outside Stockholm.

If, however, the percentage of customers doing most of their shopping at Vällingby center and the local stores are added together, all areas except Ångby have 50 percent or more of their customers purchasing most of their goods within the Vällingby area. There seemed, therefore, to be some justification for considering this area as a unit as Persson has done in his study. The main problem is that no household interviews were made outside this area, and the possibility of many customers coming from other surrounding areas cannot be overlooked.

⁵ Ibid., p. 35.

No similar study was undertaken in 1965 for the whole Vällingby area because of the relatively limited time available for field work. However, customers were interviewed directly at the community center, for comparison with a survey which was undertaken by Persson in 1957. It is hoped that recent trends and the approximate extent of the Vällingby umland can be deduced by comparing the results from these two occasions. To make the comparison as meaningful as possible, the 1965 study followed Persson's methods in spite of the more restricted resources which were available.

The 1957 study was undertaken during one week in May by about ten professional interviewers, while the present study was performed in 1965 during the last week of August by the writer alone. Thus, Persson's team was able to conduct 2,129 interviews (the non-response was six percent),⁶ compared to 580 in the later interview (the non-response was twelve percent, mainly representing customers entering the store while another interview was being conducted). In both cases persons considered to be 16 years of age or younger were excluded, since they usually were not shoppers but students spending spare time at the community center. In both studies, the interviews were limited to the time when most shops were open. The times at which interviews would be undertaken at shops and service establishments were chosen according to a random list. The liquor store and two

⁶ Ibid., p. 59.

department stores had to be excluded from the interviews in 1965 for a number of reasons.⁷

The first part of the interview was aimed at finding out where the customers at the community center lived. They were asked what part of Stockholm or other area they lived in. Table 15 shows the results from the two sets of interviews.

TABLE 15: PERCENTAGE OF CUSTOMERS AT VÄLLINGBY CENTER
FROM VARIOUS AREAS

Place of dwelling	1957 * percentage	1965 ** percentage	
Vällingby	45 %	42 %	} Vällingby umland according to plans
Hässelby	21	19	
Blackeberg, Ångby	10	6	
North Spånga	4	7	
Bromma, Västerled	10	9	
Other parts of Stockholm	4	7	
Solna, Sundbyberg	1	1	
Other parts of Greater Stockholm	3	7	
Other areas	2	2	
TOTAL	100 %	100 %	

Source: * - L. Persson, Kunderna i Vällingby, Stockholm 1960, table V:9, p. 98.

** - Field survey, 1965.

⁷ Attempted interviews at these two kinds of stores led to a number of difficulties, such as the tendency for department store customers to avoid the door at which the interviewer was standing. This, together with the impossibility of one person interviewing every person entering the store (the standard set for other shops), led to the exclusion of both department stores. The liquor store was excluded because too many of the customers attempted to take advantage of the interviewer. The difference in sex between most customers and the interviewer turned out to be a major embarrassment.

Naturally, customers from Vällingby composed the largest proportion in both years, emphasizing the prime importance of residential proximity to the center. The significant role of Hässelby residents was also stressed by Persson,⁸ and it was undiminished in 1965. Most remarkable is the high proportion of Bromma-Västerled customers at the center on both interview occasions. It had not been anticipated that this area would become part of the Vällingby area of influence. The increasing proportions of customers from more distant parts of Greater Stockholm between 1957 and 1965 indicates that the concept of suburban shopping centers was becoming more widely accepted.

Persson also correlated the number of visits to commercial outlets in the community center with the total number of inhabitants in various areas, and a similar comparison was made on the basis of customer interviews in 1965. Table 16 shows the results from the two occasions. It also makes it clear that the anticipated umland of Vällingby is coincident with the actual area over which the community center provides the greatest intensity of service (Figure 7).

The Bromma and Västerled areas are not included because although they provide the Vällingby center with a significant part of its trade, this is really a very small proportion of the total trade which they generate. The distribution of various social services also agrees well with

⁸ Persson, op.cit., p. 97.

the retail pattern. For example, the library service area corresponds very closely, according to a study undertaken in 1958 by library officials.⁹

TABLE 16: CALCULATED NUMBER OF VISITS TO STORES
IN VÄLLINGBY CENTER PER 100 INHABITANTS
IN VARIOUS AREAS

Area	1957 * visits per 100 inhabitants	1965 ** visits per 100 inhabitants
Vällingby	258	285
Hässelby	115	81
Blackeberg, Ångby	56	135
North Spånga	43	120
Bromma, Västerled	20	26
Other areas	less than 10	less than 10

Sources: * - L. Persson, Kunderna i Vällingby, Stockholm 1960, Table V:14, p. 110.

** - Customer interviews in 1965 by writer.

Note: The number of interviews were 3.7 times larger in 1957 and a corresponding adjustment therefore had to be made to the 1965 figures to make comparisons possible. This creates a certain margin of error and the 1965 figures should therefore only be considered as indicative of trends and approximate proportions.

⁹ Stadskollegiets Utlåtanden och Memorial, Bihang 96/58, Stockholm, 1958.

Commercial Development at the Community Center

The increasing importance of private cars for transportation, and increases in the size and range of facilities at the community center could possibly explain why a substantial number of customers from various parts of Greater Stockholm has been attracted to the center as well. In 1965 these "outside" customers accounted for approximately one-quarter of all customer visits. For this reason, and also in order to establish if the original composition and arrangement of the shopping center have been successful, the development of the center has been analysed.

The first group of shops and service establishments opened in 1954. In the following year there were 42 retail stores, including department stores, and 25 service establishments. The number of stores and service establishments has remained quite constant since then. By 1957 there were eight new stores and one new service establishment (an automobile association), but there were no further changes in the number of retail stores or service outlets as late as 1965. The number of establishments alone, however, does not give a true picture of the development of the shopping center, as many changes have actually occurred within the original structures and a few new buildings have been constructed without affecting the total number of outlets.

Over the whole period from 1954 to 1965, twenty-one

changes have taken place.¹⁰ The most common has been the replacement of one retail establishment by another, in most cases of a different kind, without any structural change. Five such changes took place within the short time space between 1955 and 1957, and there were ten more between 1957 and 1965, including two cases where the original establishments had closed down and the space had not yet been occupied by a new owner. Some changes, however, involved structural alterations as well. In one case a foodstore was subdivided, but mostly the structural changes were towards enlargements of existing establishments by adding two shops together. The displaced establishment could in some cases receive new, and perhaps more, floor space in new construction at the community center. The most important of these changes was the merging of the floor space of two department stores into one unit, and the re-opening of the displaced store in new premises close by. Five similar changes involving less floor space have been recorded between 1955 and 1965. This corresponds well to the views of the store operators on the sizes of their stores as recorded by Persson. In 1957 about half of them considered their premises too small.¹¹

The total of twenty-one changes represents about

¹⁰ Svenska Bostäder, Vällingby centrum, Stockholm 1955, pp. 2-3. Persson, op.cit., pp. 64-68, and Svenska Bostäder, Archives, "Ytornas fördelning i shopping centrum", Vällingby file, Vällingby 1965 (mimeographed).

¹¹ Persson, op.cit., p. 267.

one-third of all the shopping and service establishments in the center, a proportion which must be considered as quite a large modification of its original composition. An effort has therefore been made to find some reasons for the changes. The first hypothetical assumption was that the composition of the center, with regard to the number of shops of various types, had been wrongly devised. A comparison of the number of shops at three different occasions for which this kind of information was available revealed that the number of shops in each retail group has been relatively stable. The only exceptions are shops offering women's clothing, including piece goods and haberdashery. The number of establishments in each group can be gathered from Table 17.

The greatest change was shown by the women's clothing group which increased from 8 to 13 stores in ten years. Evidently the need for women's clothing shops had been underestimated. Further indications of this could be found in Persson's study, because these shops showed the largest total number of customers, and a high percentage of the interviewed housewives indicated that they went to the Central Business District for these kinds of goods in 1957.¹²

¹² Persson, op.cit., pp. 102-103 and 130-133.

TABLE 17: NUMBER OF COMMERCIAL OUTLETS AT THE VÄLLINGBY
CENTER IN 1955, 1957 and 1965

Type of establishment	Number of establishments		
	1955	1957	1965
Food stores	7	7	6
Department stores	2	2	2
Flower shops	2	2	2
Liquor store, drugstore*	2	2	2
Home decorating shops,) cosmetic shops)	3	3	3
Hardware stores	5	6	7
Furniture stores	1	2	1
Women's clothing stores	8	12	13
Men's wear stores	2	2	3
Shoe stores	2	3	3
Photo shops) Jewellery shops) Watchmaker)	4	4	4
Music and pet shops	2	3	2
Tobacconist's shop, bookstore	2	2	2
Automotive stores (including service stations)	2	3	3
Newspaper branch offices	3	3	2
Banks	4	4	4
Laundries, drycleaners	3	3	4
Barber and beauty shops	3	3	3
Cafeterias, restaurants	4	4	4
Miscellaneous service establishments	6	6	6
TOTAL	67	76	76

Note: * - Drugstores in Sweden sell only medicine.

Sources: Svenska Bostäder, Vällingby centrum, Stockholm 1955, pp. 2-3.
L. Persson, Kunderna i Vällingby, Stockholm 1960, pp. 64-68, and
Svenska Bostäder, Archives, "Ytornas fördelning i shopping centrum", Vällingby file, Vällingby 1965 (mimeographed).

The numbers in the other categories showed only small variations at the three different times. In spite of the great number of changes mentioned previously, it could therefore be concluded that, as a whole, the type and number of shops seem to have been correctly balanced.

The second hypothetical assumption in explaining the recorded changes was that the turnover of the establishments had varied from the estimates to such an extent that it had brought about changes at the center. Information about turnover, however, was very difficult to obtain from the store managers, since they had been and still were reluctant to expose their economic situation.¹³ The individual managers refused to give out any data and a questionnaire to the Association of Business Establishments at Vällingby Center (Företagarföreningen Vällingby Centrum) was unsuccessful. Aronsson estimated the turnover of all shopping and service establishments in 1955 at about 60 million Swedish crowns, which was about two-and-a-half times more than he had anticipated.¹⁴ He also stressed that the large turnover of the establishments had resulted in increased floor space, new construction and a larger labor force. Persson received information about economic conditions from 38 out of 48 shops, and was able to arrive at a total estimated turnover for the year July 1st, 1956 to June 30th, 1957

¹³ Persson, op.cit., p. 258, Pers.comm., A. Aronsson, and Writer's own experience.

¹⁴ Pers. comm., A. Aronsson.

of about 50 to 55 million crowns for all shops and cafeterias, but excluding all service establishments and car dealers.¹⁵ It is impossible to estimate the turnover of the two latter, but it is evident that the total turnover of the shopping center was far above the expectations. C. W. Carlsson, the director of Företagarföreningen Vällingby Centrum, indicated in an article in the local newspaper, Västerort, that after the first year of operation all businesses had been asked about their economic position. This had revealed that the average turnover had been 50 percent higher than expected -- in some cases the turnover had been 100 percent more than estimated.¹⁶ The first few years of operation therefore seemed to be a resounding economic success, and until 1957 only one case was recorded by Persson where there was a clear correlation between low turnover and change of ownership.

It has been much more difficult to obtain information about economic development after 1957. Carlsson mentioned, however, that during the following years the turnover increased but at a slower rate. He even went as far as to say that some stagnation or even retrogression had been recorded. The enlargement of the Central Business District of Stockholm, the construction of other suburban centers, some technical problems (mainly airconditioning) and above

¹⁵ Persson, op.cit., p. 258.

¹⁶ Västerort, Nov. 4, 1964, article by C.W. Carlsson.

all the disturbances from the new construction at the center and the lack of parking space were seen as reasons.¹⁷ This seems to be too pessimistic a view, however, considering that only one year later Aronsson mentioned that the purchasing power of the residents of the Vällingby area had doubled between 1954 and 1964,¹⁸ and that at a recent Swedish town planning exhibition,¹⁹ an annual turnover of 100 million Swedish crowns was claimed for Vällingby center in 1963. Naturally, some individual shops might have declined, but as the only data refer to total turnover, any individual cases of this kind must be disregarded. There are no indications that any specific group of businesses has experienced economic difficulties.

In light of the general economic prosperity of the enterprises at the community center, it is concluded that the economic factor has probably contributed greatly to the many changes at the center. In the initial stage of a planned extension of the center, 28 Vällingby businesses (out of 76) revealed their interest in areal enlargements,²⁰ which certainly bears witness to economic success.

¹⁷ Loc.cit.

¹⁸ Pers.comm., A. Aronsson.

¹⁹ Stockholms Stads Stadsbyggnadskontor, "Swedish Planning of Town Centers", May, 1965. Exhibition shown in Edmonton, Canada.

(Whenever possible the amounts of turnover and floor space claimed for various town centers were checked with other sources and were found reliable, but no other reviewed document contains information about the turnover of Vällingby.)

²⁰ Pers.comm., A. Aronsson.

The most noticeable modification of the plans for the community center was the expansion beyond the original floor space estimates. As early as 1957 the floor space area of about half of all the businesses was considered too small.²¹ The approximate floor space of shops and service establishments (excluding basement storage) was then 14,000 square meters, or 70 percent of the originally planned floor space.²² By 1965 the total floor space had been extended to about 23,000 square meters, or 3,000 square meters more than first planned, and an additional 3,600 square meters was under construction when field work was undertaken in 1965.²³ Thus the total floor space of all businesses would be approximately 26,600 square meters by 1966 -- an increase of 33 percent above the ultimate size which was first intended.

The enlargements have not been evenly distributed among the different groups of establishments. The breakdown of total floor space for all retail establishments, including basement storage, is shown in Table 18.

²¹ Persson, op.cit., p. 267.

²² Ibid., pp. 76-78 (figures, with deductions made for basement storage).

²³ Svenska Bostäder, Archives, "Befintlig bebyggelse och nybebyggelse" and "Ytornas fördelning i shopping-centrum". Vällingby file, Stockholm 1961 and 1965 (mimeographed).

TABLE 18: TOTAL FLOOR SPACE OF RETAIL ESTABLISHMENTS
AT VÄLLINGBY CENTER

Type of establishment	1957 *		1965 **	
	Square meters	Percent- age	Square meters	Percent- age
Food stores	1,030	7.3	961	3.7
Department stores	5,310	37.5	15,530	60.4
Flower shops	180	1.3	279	1.1
Liquor store, drug store	970	6.9	980	3.8
Home decorating shops) cosmetic shops)	420	3.0	406	1.6
Hardware stores	920	6.5	987	3.8
Furniture stores	1,600	11.3	1,543	6.0
Women's wear stores	2,040	14.4	2,181	8.5
Men's wear stores	440	3.1	1,103	4.3
Shoe stores	600	4.2	833	3.2
Photo shops) Jewellery shops) Watchmakers' shops)	300	2.1	426	1.7
Music and pet shops	210	1.5	280	1.1
Tobacconist's shop, bookstore	130	0.9	203	0.8
TOTAL	14,150 sq.meters	100%	25,712 sq.meters	100%

Sources: * - L. Persson, Kunderna i Vällingby, Stockholm 1960, pp. 76-78.

** - Svenska Bostäder, Archives, "Ytornas fördelning i shopping-centrum", Vällingby file, Vällingby 1965 (mimeographed).

The most remarkable change was the nearly three-fold increase of the floor space of the two department stores. Evidently this first trial of locating department stores outside the Central Business District proved so successful that large extensions were considered feasible after only a few years of operation. They increased from 37.5 percent to 60.4 percent of the total retail shopping space at the center.

This latter is a remarkably high proportion for Swedish conditions though, as in many other western countries, there has been a general trend towards an increasing importance of department stores.

In the eight year period studied here, men's wear stores more than doubled their area. Most of the increase was due to expansion of one already established store, but one new men's wear store was also opened. The total increase for men's wear was large enough to produce a higher proportion of the total floor space of the center.

All the other categories of shops experienced a proportional decrease which, however, was most often accompanied by an actual increase in area. Only food stores had an actual decrease in total floor space, but as the closing of only one store accounted for the change, it should not be over-emphasized.

Development of Service Facilities and Office Establishments at the Community Center

Little information was available about service and office establishments, but obviously changes have been made during the development process. The original plan called for 56,350 square meters, of which 15,650 square meters were proposed for public buildings (offices and services) and the remaining 40,700 square meters for private office and service establishments. In 1953 there was a

suggestion to reduce the total floor space to 36,825 square meters without further explanation.²⁴ It was impossible to determine if this suggestion was adopted, but a reduction of the original plan may have occurred, as the 1965 Town Planning Exhibition, Swedish Planning of Town Centres, mentioned 32,570 square meters as being the office and service floor space that would be attained when the extension of the center was completed.²⁵ However, it gave the false impression that this was an increase of 46 percent above what had originally been intended. Actually it was an increase of only 46 percent above the existing office and service floor space of 22,000 square meters. In 1965 the corresponding figure was about 26,000 square meters, not including a parkade with a service station. Construction of a parkade had not been planned originally, but was made necessary by the extension of the center onto a former parking lot. Table 19 provides a breakdown of office and service floor space in 1965.

Persson excluded most offices from his study, so it was not possible to make a comparison similar to that for shopping floor space. In 1965, the most important group was financial and professional offices, which covered one-half of the total floor space. Two construction firms, one of them "Svenska Bostäder", used major parts of this space for offices.

²⁴ Svenska Bostäder, Archives, "Vällingby centrum, Våningsyta", Vällingby file, Vällingby, 1953.

²⁵ Stockholms Stads Stadsbyggnadskontor, "Swedish Planning of Town Centres", Exhibition shown in Edmonton, Canada, May, 1965.

TABLE 19: FLOORSPLACE OF OFFICE AND SERVICE
ESTABLISHMENTS IN 1965

Type of establishment	Floorspace (square meters)
Automotive service	100
Cafes and restaurants	3,485
Financial and professional offices	12,760
Governmental offices	925
Governmental services	7,206
Miscellaneous service establishments (private)	1,495
TOTAL	25,971 sq.meters

Source: Svenska Bostäder, Archives, "Ytornas fördelning i shopping-centrum," Vällingby file, Vällingby 1965 (mimeographed).

Governmental services took up about one-fourth of the total floor space -- a very high proportion considering the fact that little mention was made of this function during the planning stage. They included such services as a police station, a post office, a telegraph and telephone exchange office, a factory inspection bureau, a welfare office, a public dental clinic and a child care office.²⁶

Office and service floor space in the center has been reduced considerably compared to the original plan, a fact that has been well concealed in all publications. Often

²⁶ Svenska Bostäder, Archives, "Ytornas fördelning i shopping-centrum", loc.cit., (mimeographed).

the 19,660 square meters of the new parkade are added in, which naturally boosts the total considerably, but since this space is used for parking only, there is little justification for adding it to office and service floor space.

Parking Provisions

Originally it had been thought that 400 parking spaces would be adequate to serve the customers of the center. However, car ownership and use became more widespread than anticipated and in 1960 about 40 percent of all households in the Vällingby area had private cars. The number of parking spaces has therefore been gradually increased to a total of 1,548 as of June, 1965.²⁷ Close to 600 of these parking spaces are provided in the parkade, which is the first to be built in a suburban area. Even if proximity to the center is achieved this way, the parkade has not provided a solution to the parking problem, as people are using it very little,²⁸ either because of the novelty of a suburban parkade or because there are charges for parking. Complaints about inadequate parking facilities have been a constant feature of this center, and there are fewer parking stalls at this community center than at others of comparable size. The new community of Farsta, for

²⁷ Svenska Bostäder, Archives, "Parkeringsplatser invid Vällingby-centrum", Vällingby 17/6, 1965, Vällingby file (mimeographed).

²⁸ Pers.comm., A. Aronsson.

example, was planned for and developed with 2,000 parking spaces.²⁹

Layout of the Community Center (Figure 8)

The general layout of the community center above the Vällingby subway station coincides to a great extent with the planning proposals. Thus, most of the initial shops are laid out around an L-shaped plaza, and the public buildings are concentrated along the southwestern fringe of the center, where the facilities include a library, a civic meeting hall, a youth center and, on the highest ground, a church. As hoped for during the planning stage, this has created a situation where the center is more than just a place for shopping during the daytime. After closing time for the shops, people are attracted to meetings in the community building, to gatherings at the youth center, or to the movie theatre. The community center is surrounded by high rise apartment blocks, some of which have dual functions with shops and offices on the lower floors and apartments above. One high rise building on the fringe of the community center serves as a medical building, while another is laid out in such a way that it could eventually be converted into a hotel, should the need arise. At present there is no hotel in the community. The planned theatre has not been built,

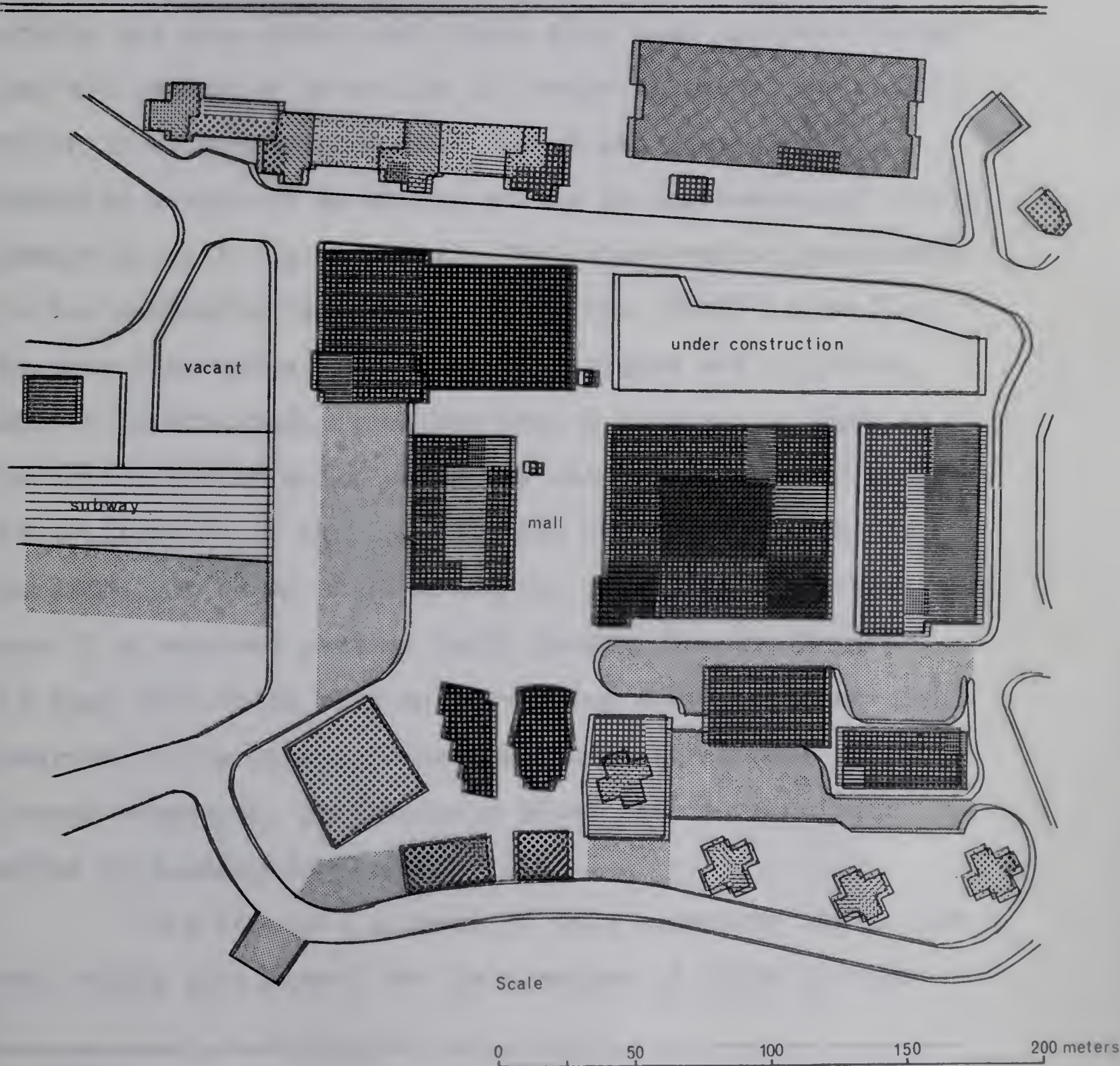
²⁹ C. F. Ahlberg, "Shopping Centres and Satellite Towns in the Stockholm Region", report presented at conference on Regional Planning and Retailing in Zürich, Feb. 1965, p. 9 (mimeographed).

Figure 8A

BUILDING and LAND USE at
VÄLLINGBY COMMUNITY
CENTER

Ground floor use
Second floor use

- Legend
- Retail Business
 - Offices
 - Transportation
 - Service Industry
 - Institutional Services
 - Recreational Facilities (indoor)
 - Residential
 - Parking



Second floor use

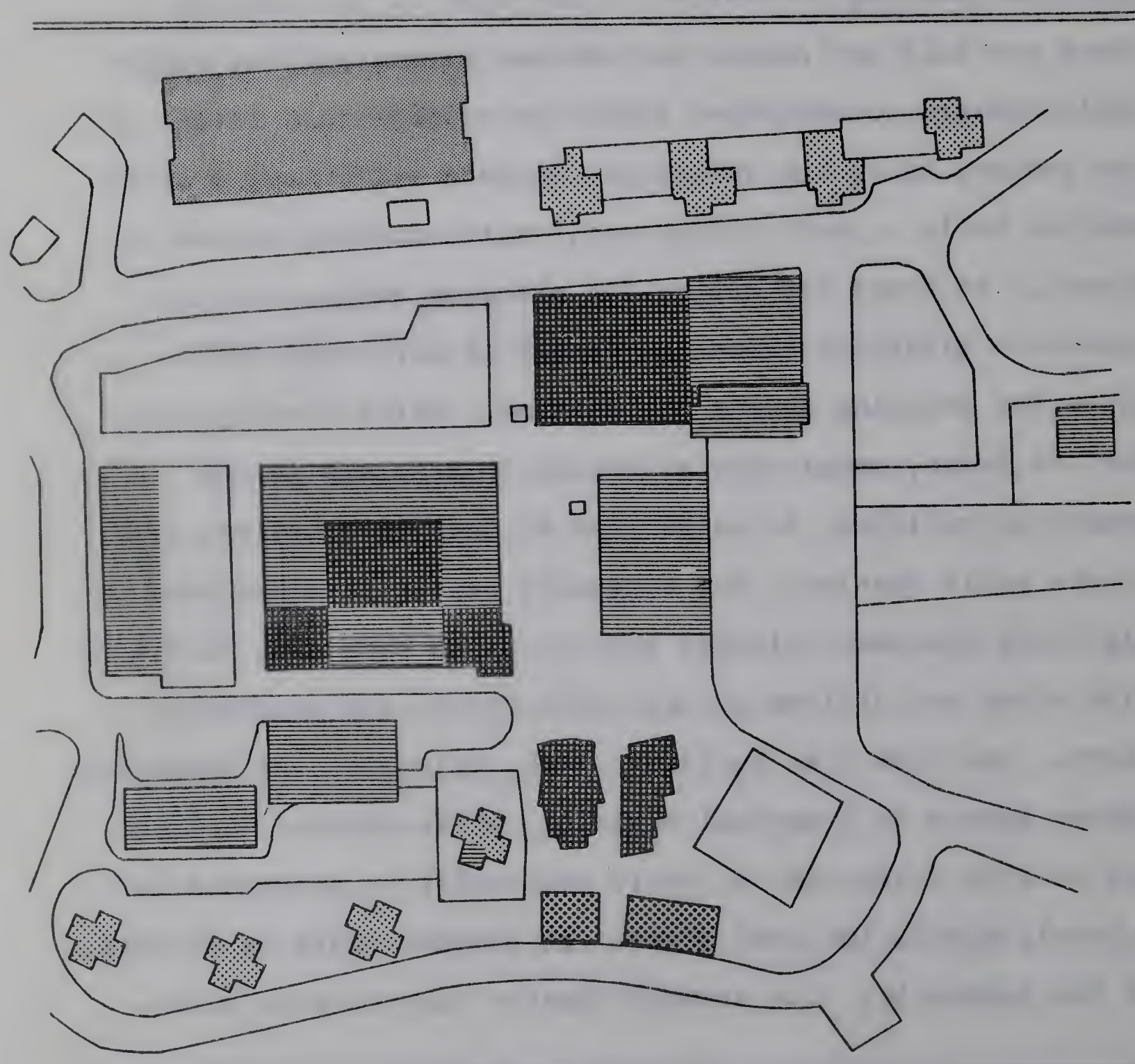


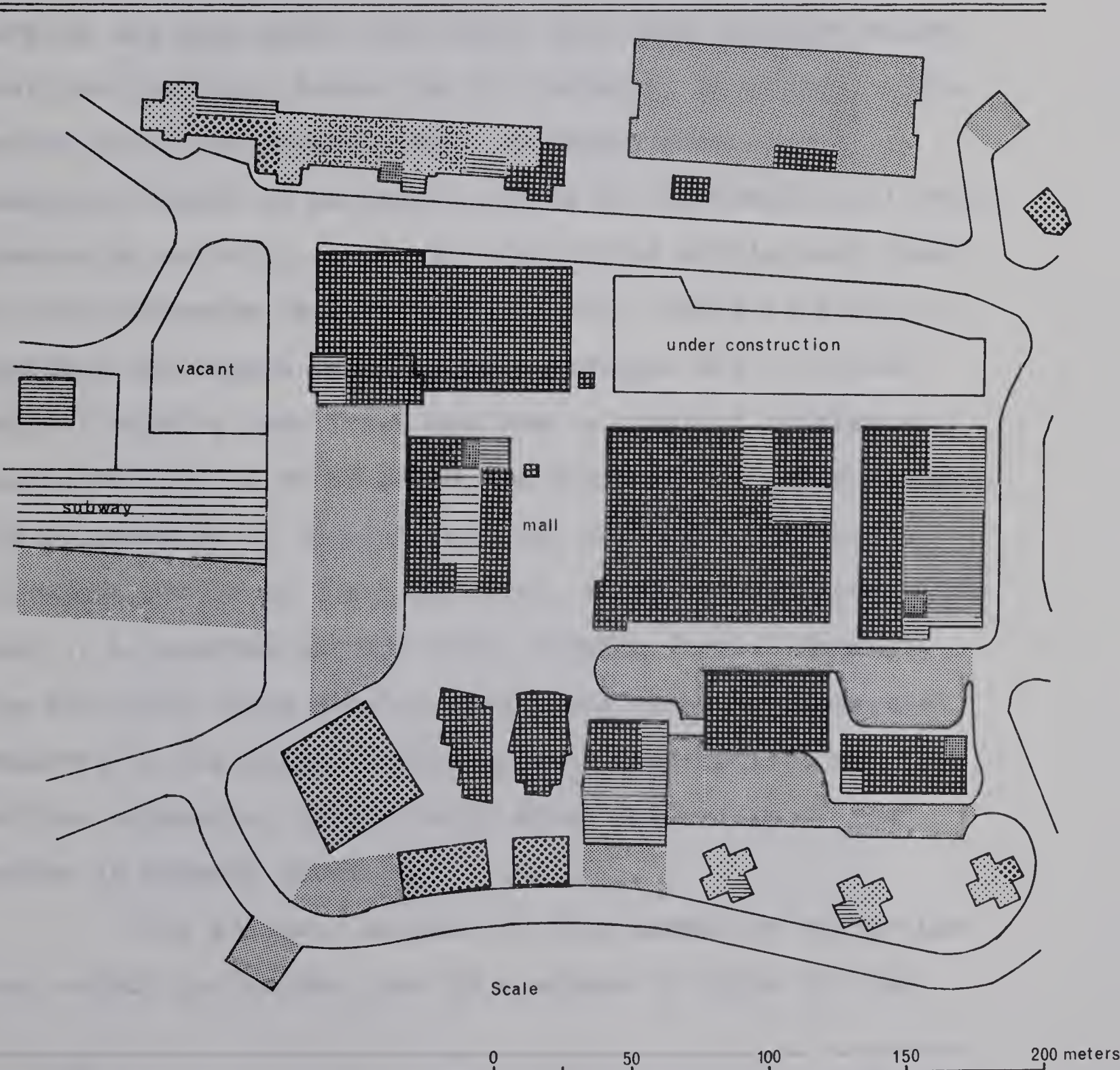
Figure 8 A

BUILDING and LAND USE at
VÄLLINGBY COMMUNITY
CENTER

Ground floor use

Legend

- Retail Business
- Offices
- Transportation
- Service Industry
- Institutional Services
- Recreational Facilities (indoor)
- Residential
- Parking



the reason being that the operation was anticipated to cause a large deficit which would then have to be covered by the City of Stockholm.³⁰ Neither has the building for small repair and service shops been constructed, but it may still be built at the center if it can be accommodated.

The expansion of commercial establishments beyond expectations has taken place mostly on land intended for parking and open space, and there have been opinions voiced that the community center is too compactly developed. This writer is of the opinion that the compactness of the community center is an asset, giving an impression of lively commercial activity with all facilities within easy reach for the customers (see Plates 8 to 11). There is still adequate open space which is well designed and utilized. Lack of parking facilities has been a constant problem at the center and is still below the standard for other centers. The utilization of parking lots for new construction may therefore not be an ideal solution, unless people accept the idea of a suburban parkade (with parking fees). However, the fact that there were no provisions made for commercial reserves in the plans, forces serious restrictions on further expansion, particularly since the fringe of the center is densely developed.

The economic success of this community center has been widely publicised, and is a source of pride for the

³⁰ Stadskollegiets Utlåtanden och Memorial, Utlåtande 163/56, Stockholm, 1956.

planners, but there are doubts that the success is a direct result of solid and thorough planning. The great number of changes and additions and the limited expansion possibilities after only ten years of operation, suggest that more flexibility should have been allowed for in the plans.

Local Shopping Areas

Outside the community center, small neighborhood centers were built according to the original plans. Thus the Grimsta neighborhood has a center consisting of four stores serving the local population, while a center in Räcksta contains nine stores of neighborhood type. In addition, local groceterias, beauty shops, etc., are found dispersed throughout the whole community.



Plate 7. The subway station at Vällingby Center is surrounded by high density development.



Plate 8. Vällingby Center is pedestrian-oriented with one main plaza around which a large number of stores are situated.



Plate 9. The subway travellers are brought right to Vällingby Center. Subway exit in building to the left.



Plate 10. The central plaza is well frequented by all people, not only for shopping purposes.



Plate 11. Compact commercial development at Vällingby Center.



Plate 12. The local neighborhood shopping center at Räcksta is partly accommodated on the ground floor of an apartment building.

CHAPTER 7

EMPLOYMENT AND PLACES OF WORKEmployment at Community Center

Through the early completion of the Vällingby center a number of employment opportunities were created. The new shops, stores, offices and service establishments required a large staff. The provision of many of these jobs was simultaneous with residential development, and with the economic success of the center many shops and stores increased both their floor space and their staff. In 1957 some 508 persons were employed in the stores at the community center, half of them in the two department stores.¹ By 1960 this figure had increased by approximately 100 persons; half of the growth took place in the staff of the department stores² (Table 20). Aronsson estimated the increase between 1960 and 1965 to amount to another 100 persons, which would thus give approximately 700 persons employed in the central stores by 1965.³

Both in 1957 and 1960 clothing stores employed approximately 18 percent of the total staff, while some

¹ L. Persson, Kunderna i Vällingby, Stockholm 1960, p. 262.

² Statistiska Centralbyrån, Folk-och Bostadsräkningen 1960, "Förvärsarbetande Dagbefolkningen efter Näringsgren och Kön", Table 5 (unpublished computer lists).

³ Pers.comm., A. Aronsson, Svenska Bostäder, Vällingby.

specialty stores, such as furniture, music, photo and jewellery stores, decreased from approximately 14 percent to 8 percent of the total employment in the central stores. Food stores employed 7 percent of the total personnel in 1957, but increased to 10 percent at the later date.⁴

TABLE 20: PERSONS EMPLOYED IN STORES
AT VÄLLINGBY CENTER

Type of Store	1957 *		1960**	
	Number	Percentage	Number	Percentage
Department stores	246	48%	305	50%
Clothing stores	91	18	110	18
Food stores	36	7	61	10
Specialty stores	70	14	49	8
Others	65	13	85	14
TOTAL	508	100%	610	100%

Sources: * - L. Persson, Kunderna i Vällingby, Stockholm 1960, p. 262.

** - Statistiska Centralbyrån, Folk-och Bostadsräkningen 1960, "Förvärvsarbetande Dagbefolkningen efter Näringsgren och Kön", Table 5 (unpublished computer lists).

Note: Figures for 1960 approximate only.

⁴ Persson, loc.cit., p. 262, and Statistiska Centralbyrån, loc.cit.

Local Commercial Development and Employment

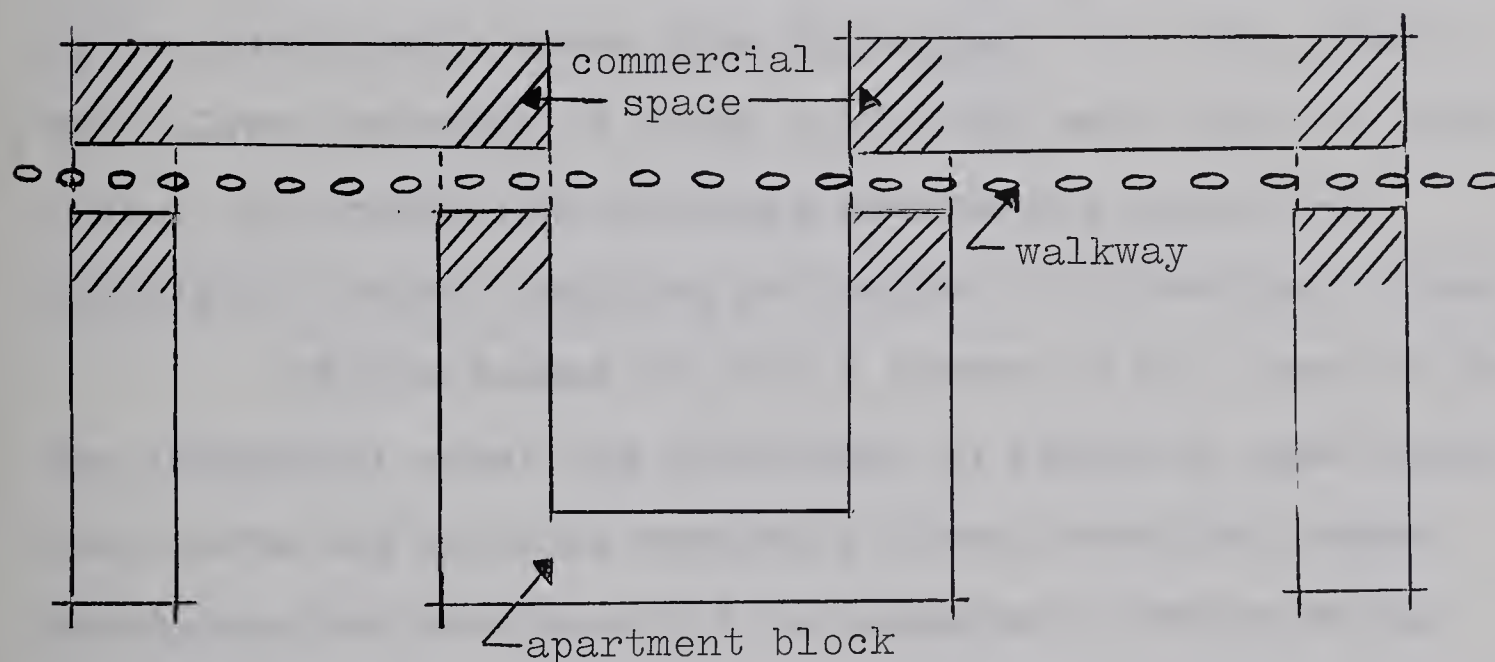
Outside the main center, a local neighborhood center at Räcksta, a small center at Grimsta and other local stores scattered through the residential areas catered to the daily convenience needs of the inhabitants in the immediate surroundings. In 1960 the total staff of these stores amounted to some 220 persons, or slightly over one-third of the total employment at stores in Vällingby center. About two-thirds of the 220 persons were employed in local food stores.⁵

Service establishments such as cafes, restaurants, beauty shops, barbers and laundries in 1960 had a total staff of 329 persons, of which approximately one-half worked at the Vällingby center and the other half at local establishments in the residential areas. In the Grimsta neighborhood the apartment blocks were specially designed to accommodate small service establishments and shops. These were arranged along the main walkway through the long and narrow residential neighborhood. The walkway crossed through apartment blocks in "underpasses" on the ground floor, where commercial floor space was reserved on both sides of the "underpasses" (see Plates 13 and 14 and sketch on page 117). Architecturally

⁵ Statistiska Centralbyrån, loc.cit.

this may be an interesting combination of dwellings and shops, but from field observations and discussions with managers, it was gathered that some establishments had economic difficulties.⁶ Evidently the wide scattering of these shops had been less successful than the compact development of the centers at Vällingby and Räcksta neighborhoods.

Commercial-residential Arrangement at Grimsta



⁶ Pers.comm., managers of commercial establishments at Grimsta, 1965.

Industrial Development and Employment

The two small industrial areas -- one at the Grimsta and the other at the Räcksta neighborhood -- were completely developed by 1965. However, the industrial premises had not been completed simultaneously with the residential areas. Development was delayed by industrial building restrictions in the Stockholm region, as well as by the reluctance of industrialists to invest in premises in a new area.⁷

The first industrial building was completed in 1954 by the municipally owned firm Korphoppet. In 1965, there were eleven premises of which only three were owned by their users. The remaining buildings were mainly erected by municipally owned companies and sublet to industrial firms.⁸

In the summer of 1965 a survey of all firms in the two industrial areas was undertaken to establish some important facts and opinions regarding these industrial areas. Questionnaires were sent out to managers or owners of all firms, and the replies were collected personally to allow any necessary clarification and possibly further comments from the managers. This method gave a very good response with answers from 17 out of 19 firms.

⁷ Pers.comm., J. Stäck, Stadsbyggnadskontoret, Stockholm, and Svenska Bostäder, Vällingby, Stockholm 1966, p. 22.

⁸ Pers.comm., managers of firms in industrial areas (industrial questionnaires).

Of the seventeen responding firms, only eight had moved to Vällingby before 1958 - the period of greatest residential construction. The number of firms established each year at the two industrial areas is indicated in Table 21.

TABLE 21: NUMBER OF NEW FIRMS ESTABLISHED IN EACH YEAR

Year	No. of firms	Year	No. of firms
1954	3	1960	-
1955	4	1961	1
1956	1	1962	-
1957	-	1963	2
1958	1	1964	5
1959	-	1965	-
TOTAL -		17	

Source: Industrial questionnaires, 1965. (Two non-responding firms not included.)

A variety of businesses were represented. They included printing and electronic industries, a mechanical engineering works, a consulting engineering office and, most important as far as numbers went, automobile sales and service establishments. In 1965, six out of seventeen firms dealt with or provided services for cars. Table 22 indicates the number of firms according to category.

TABLE 22: TYPES OF FIRMS IN INDUSTRIAL AREAS, 1965

Type of firm	Number
Manufacturing firms	8
Wholesale firm	1
Professional offices	2
Automobile dealers or services	6
TOTAL	17

Source: Industrial questionnaires, 1965.

The rapidly increasing demand for cars during the period that Vällingby was under development caused a great need for sites to allow for expansion of sales and service businesses. The automobile establishments, the offices and the wholesale firm in the Räcksta and Grimsta industrial areas lessened the impression of industrial estates, but this departure from the plans has not caused any particular problems.

In 1965 the seventeen firms employed a total of 698 persons, and all were relatively small. Only two firms employed between 100 and 200 persons, while three others had a total staff of 50 to 100 persons each. The remaining firms employed less than 50 people each. Car dealers, including body shops and service stations, employed slightly over 40 percent of the persons working in the interviewed firms. The printing industry was second in importance, employing 21 percent of the total.

All establishments were also smaller than the national average. While, for example, the national average number of employees at electronic industrial plants in 1960 was as high as 170 employees,⁹ Vällingby showed an average of only 32 employees. As the industrial areas were very limited in size, only 5.3 hectare together, it was natural that the large industries were not represented.

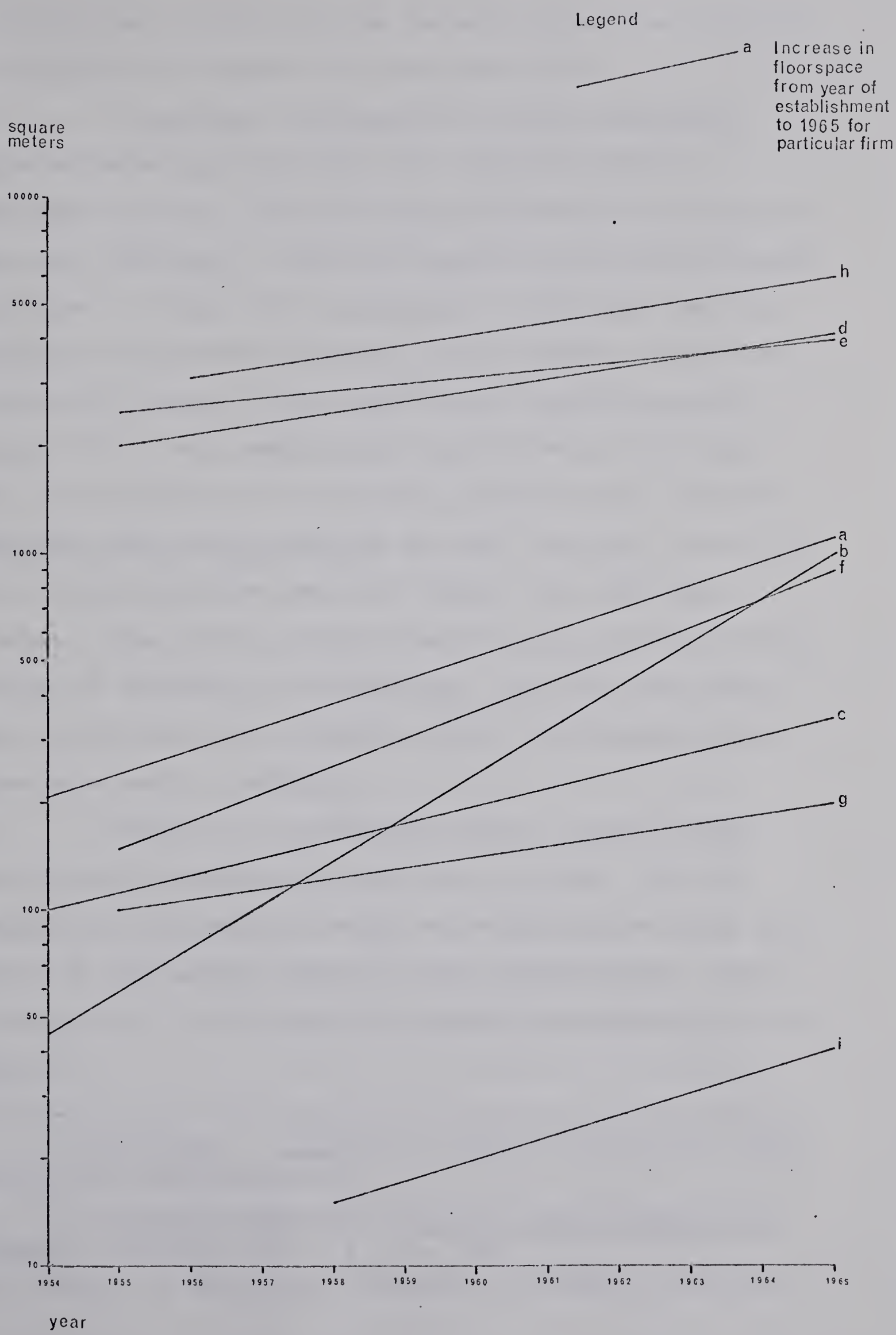
In spite of the limited time of operation, all but one of the firms established before 1960 had at least doubled their employment since their first year of operation at Vällingby. Most of the new firms (established after 1960) had also had considerable staff increases.

The expansion of the firms was also revealed in increased floor space. Many of the early established companies started off with comparatively limited floor space, but all of them have since expanded their areas, usually by at least 100 percent. One enterprise increased from 45 square meters to 1,000 square meters in a ten-year period. Figure 9 indicates the increases in floor space of the nine firms established before 1960.

The firms established after 1960 have experienced few changes in their floor space, which can be explained by the short time of operation. The total floor space of the seventeen firms in 1965 was 26,740 square meters, of which

⁹ Statistiska Centralbyrån, Statistisk Årsbok för Sverige, 1962, Stockholm 1962, Table 112, pp. 92-94.

FLOORSPACE CHANGES FOR FIRMS, ESTABLISHED DURING EARLY DEVELOPMENT PERIOD AT INDUSTRIAL AREAS



62 percent was occupied by car dealers and service stations. No expansion of original sites was recorded.

In general, the managers or owners expressed great satisfaction with both their premises and the Vällingby location. Only one firm indicated an intention to move from Vällingby. The most important factor which caused the firms to locate their operations at Vällingby was that suitable premises were available in the suburb. This was given by 64 percent of the firms as the "most important reason".¹⁰ It was evident from the follow-up interviews that the availability of suitable premises rather than the Vällingby area itself had been the most important factor in attracting industries and other firms to the Vällingby estates. Nine firms indicated that they had previously been located in Stockholm or its suburbs. Only one firm moved from a different part of Sweden, while the remaining seven firms were newly established.

Adjacent to the Räcksta estate, a subway depot for the western subway line was built in 1952. The ten hectare site accommodates sheds and a maintenance shop, and is one of the largest depots for the subway system (refer to Plate 17). In 1965 some 150 people were employed at the depot.¹¹

¹⁰ Pers.comm., managers of firms in industrial areas (industrial questionnaires).

¹¹ Stockholms Spårvägar, "The Stockholm Underground Railway", Stockholm 1965, p. 31, and Pers.comm., H. Andersson, Stockholms Spårvägar, Stockholm.

Interspersed through the residential development are many small industrial firms, often accommodated in the basements of apartment blocks, as basements are usually not used for dwellings in Sweden. Thirty-two such industries were observed by field check in the summer of 1965. Approximately 75 percent of these were small repair and service industries, serving the neighborhood population, while printing industries dominated the remaining 25 percent. The planned building for service and repair shops at Vällingby center has not yet materialized.

Offices and Office Employment

Information about the total number of office jobs was not available, as statistical data were given according to type of business rather than type of employment. In 1965 some 25 offices were accommodated at Vällingby center and a few more were scattered throughout the residential areas. The most important office was a national government hydro-power office, Vattenfallsverket, which in 1965 employed 1,749 persons, of whom 518 were women. In addition, six other governmental offices were accommodated in the same building with a total employment of 700 persons. This office complex was built on a large site adjacent to the Räcksta subway station. This site had originally been reserved for a hospital, but due to a greater emphasis on large regional hospitals, the hospital at Solna (about 2.5 kilometers or

1.5 miles north of the Central Business District of Stockholm) was increased instead.¹² Through this change in plans, office employment became the most important source of employment in Vällingby, outnumbering both retail and industrial employment. No exact comparative figures could be obtained, but it was estimated by Aronsson that around 50 percent of the total employment in Vällingby in 1965 consisted of office personnel.¹³

The decision to locate the governmental office complex at Räcksta was based on the fact that a suitable site was available and that easy contact with other governmental offices could be secured. Other cities in Sweden had been considered in connection with the relocation of this office, which had previously been scattered in several areas of Stockholm. The total floor space of the new complex amounted to 90,000 square meters.¹⁴

Total Employment

The total number of persons employed in various categories is shown in Table 23. This information is for 1960, when the new governmental office was not yet completed. The two categories "construction and utilities" and "services" include a large number of office personnel.

¹² Kungliga Bostadsstyrelsen, Huvudstad, Hälsingborg, 1964, p. 26.

¹³ Pers.comm., A. Aronsson.

¹⁴ Pers.comm., O. Blomquist, Vattenfallsverket.

TABLE 23: NUMBER OF PERSONS EMPLOYED IN VÄLLINGBY, 1960

Type of Employment	No. of Employees			Percentage
	Male	Female	Total	
Manufacturing industry	707	300	1,007	20.9 %
Construction, utilities	893	170	1,063	22.1
Wholesale	125	63	188	3.9
Retail	337	624	961	20.0
Transport	201	42	243	5.0
Services	456	879	1,335	27.7
Unspecified	17	-	17	0.4
TOTAL	2,736	2,078	4,814	100 %

Source: Statistiska Centralbyrån, Folk-och Bostadsräkningen 1960, "Förvärvsarbetande Dagbefolkningen efter Näringsgren och Kön", Table 5 (unpublished computer lists).

Of the total employment in 1960, 43 percent of all jobs were occupied by women -- a proportion which by far exceeds the national average of approximately 25 percent.¹⁵ This can be seen as a result of the higher than average proportions of retail and service employment, where usually a larger number of women are represented.

It can be concluded that the planned number of work-places was reached about 1960, when close to 5,000 persons were employed at Vällingby. Since then, at least 2,500 additional jobs have been created. The intended equal

¹⁵ Statistiska Centralbyrån, Statistisk Årsbok för Sverige 1962, Stockholm 1962, Table 103, pp. 81-83.

proportions of employment in industry, commercial services and offices have been outbalanced by large additions in office employment since the completion of Vattenfallsverket.



Plates 13 and 14. Commercial development in the Grimsta neighborhood is often accommodated in apartment buildings with walkways leading from one building to another.





Plate 15. The small industrial enterprises at Grimsta do not detract from the residential amenities of the neighborhood.



Plate 16. Automotive establishments are more common in the Räcksta industrial area than industries.



Plate 17. The subway depot at Vällingby serves the whole northwestern subway system.



Plate 18. The National Hydropower office has relocated its facilities from central parts of Stockholm to Råcksta.

CHAPTER 8

STOCKHOLM - VÄLLINGBY INTERDEPENDENCE

Vällingby has been compared to Howard's Garden City,¹ and it has some similarities, but the differences are more than modifications of a model. Like the Garden City, Vällingby contains both industries and residences, built on former agricultural land that was publicly owned. Many major characteristics of the Vällingby development, however, are contrary to Howard's principles; for example, Vällingby has no green belt - only narrow strips of open land and major roads are surrounding the community. Its development was, in effect, a continuation of the built-up suburban areas of Stockholm. The Garden City was envisaged as a self-contained and independent town,² while Vällingby was under Stockholm jurisdiction and was never intended to be more than partly self-contained. One central idea for Howard was that the profit from publicly-owned land and from semi-municipal enterprises would accrue to the inhabitants of the town,³ but Vällingby on the other hand, was financially inseparable from the remaining parts of the city. It has often been discussed whether the various

¹ Stockholms Stads Stadsplanekontor, Generalplan för Stockholm 1952, Stockholm 1952, pp. 137-148.

² E. Howard, Garden Cities of Tomorrow, London, 1965 edition, pp. 89-95.

³ Ibid., pp. 58-88.

districts within Stockholm should obtain some local administration or representation,⁴ but so far this has not materialized.

Commercially, Vällingby has to a large extent established itself as a self-sufficient center catering to the major needs of its inhabitants. The Central Business District has, however, retained its role as dominant center, despite the establishment of four additional district shopping centers of approximately the same size as Vällingby's. During the late 1950s and early 1960s major redevelopment was undertaken of the city center, which may have prevented potential decline of the central core. The economic success of Vällingby center, the introduction of more specialty stores (ten new specialty shops applied for premises in connection with the 1965 expansion) as well as the great increase in floor space indicate that the new center has successfully taken over parts of a traditionally downtown function. The relatively high proportion of customers from surrounding communities shows that Vällingby center has developed its own umland within the framework of the city. Similarly the success and expansion of professional and social establishments indicate that Vällingby has been able to offer an alternative to a downtown location.

One of the best indications of the degree of

⁴ Dagens Nyheter, June 16, 1965.

functional interdependence is the relationship between residences and places of work, or the degree of commuting. Detailed information about commuting practices was available in the 1960 Census. One main difference between Vällingby and earlier residential areas in Stockholm was that Vällingby was intended to be substantially self-sufficient with respect to employment. The plan called for 5,000 work-places compared to the estimated 10,000 wage earners. At the time of the 1960 Census the total working population living in Vällingby amounted to 10,144 persons, which was almost exactly according to estimates. Of these, however, only 1,676 persons or 16.5 percent were employed in Vällingby, while the remaining 83.5 percent commuted to other parts of Greater Stockholm with 47 percent working in inner Stockholm.⁵

The figures were even more discouraging when the whole "Vällingby area" was considered, as in a study by S. E. Nordin, who also used the 1960 Census data. He found that 92 percent of all wage earners in the "Vällingby area" commuted to other parts of Greater Stockholm. Of the total of 25,179 commuters, 49 percent were found to have their work in inner Stockholm.⁶

On the other hand, 3,138 wage earners commuted

⁵ Statistiska Centralbyrån, Folk-och Bostadsräkningen 1960, "Förvärvsarbetande Nattbefolkningen", Table 2 (unpublished computer lists).

⁶ Stadskollegiets Utlåtanden och Memorial, Bihang 143/63, S. E. Nordin, Stockholm 1963, p. 39.

"Vällingby area" in Nordin's report is somewhat smaller than the area referred to as Vällingby umland in this study.

daily to Vällingby from other parts of Greater Stockholm in 1960. They came from an extensive area and with noticeable concentrations along the subway routes. The reason for this great influx of non-resident wage earners was that the planned number of jobs had gradually been created but had not been filled by Vällingby residents. In 1960, there were 4,814 places of work compared to the original estimate of 5,000, and since 1960 many more have been added (see pages 123 to 126).

The estimated number of employment opportunities had thus been achieved and the estimated number of wage earners reached by 1960, but the point where the plans did not work out as expected was the co-ordination between work-places and places of living. The people who live in Vällingby are mostly not the ones who work there. As early as 1960, some 8,468 persons left Vällingby every day for work, while another 3,128 persons commuted into Vällingby.⁷ Among the employees of the new office complex Vattenfallsverket, 34 percent lived in Vällingby in 1963, and it therefore seems that the situation is improving somewhat.⁸

The reason why a better relationship between work and residence was not achieved was simply that residential areas were given priority over industrial areas in the

⁷ Statistiska Centralbyrån, Folk-och Bostadsräkningen 1960, "Förvärvsarbetande Dagbefolkningen", Table 6 (unpublished computer lists).

⁸ Pers.comm., O. Blomquist, Vattenfallsverket, Räcksta.

construction schedule. At the time when the majority of employment opportunities arose within the area, most dwellings were already occupied and most wage earners had to find accommodation in other parts of Stockholm. Most people moved into Vällingby during the period between 1953 and 1957, but the main employment opportunities were not created until the late 1950s and early 1960s. Early residents had to be employed elsewhere. New firms moving into Vällingby desired houses for their employees in the area, but mostly these possibilities were very restricted. The City of Stockholm had promised to secure accommodation for approximately half of the employees of Vattenfallsverket, but could not fulfill its promise, and as a result the department itself supported two foundations engaged in housing promotion for its employees. In this way some 69 dwellings have been provided for employees, in addition to loans which have been made to individual wage earners for housing purposes.⁹ Presumably this active housing policy can explain the somewhat more satisfactory relationship between work and residence for its employees.

The poor integration of work-places and residences naturally strained the means of transportation. In addition, contact between Vällingby and other parts of Stockholm became greater through this large-scale commuting. The two main traffic connections with the rest of Stockholm were the

⁹ Pers.comm., O. Blomquist.

subway and the highway networks. The railway line between Stockholm and North Spånga played only a minor role, offering less service for the residents of Vällingby and also fewer connections than the subway line. Bus routes served only to link Vällingby with those surrounding residential suburbs that lacked subway facilities. The main interest will therefore be focused on road and subway connections. Both provided direct routes to the central part of Stockholm and, under normal traffic conditions, they each had an average travelling time of 25 to 30 minutes.¹⁰ Rush-hour traffic, however, slowed down the average speed considerably on the downtown-Vällingby route, particularly for automotive traffic.

In 1958 and 1961 traffic studies were undertaken for Greater Stockholm by the Statistical Bureau (Statistiska Centralbyrån) and the Stockholm Public Transport System (Stockholms Spårvägar). The dominant type of trip, in both years, was found to be the journey to and from work. In 1961 these trips alone accounted for approximately 45 percent of all trips for the Bromma-Spånga area.¹¹ In 1958 cars were the most important means of transportation for residents at Vällingby, accounting for 45 percent of all trips.¹² In most other parts of Stockholm, the public transport system was

¹⁰ Stockholms Spårvägar, The Stockholm Underground Railway, Stockholm 1965, pp. 34-36, and Pers.comm., J. Stäck, Stadsbyggnadskontoret, Stockholm.

¹¹ 1961 Års Spårvägstaxekommitte, Resvaneundersökningen i Stor-Stockholm 1961, Stockholm 1964, Table 31, p. 167.

¹² Stockholms Spårvägar, Resvanor i Stor-Stockholm 1958, Part II, Stockholm 1961, Table 46.

more important. In 1958 only three of the 70 districts in Greater Stockholm had a higher car ownership per household than Vällingby, which at that time showed 51 percent of all households as car owners.¹³ In 1961 the car-owning households in Vällingby had decreased to 47 percent, while most other Greater Stockholm districts had increased their car ownership since 1958.¹⁴ The relative importance of car use also decreased - in 1961 only 41 percent of all trips for Bromma-Spånga residents were undertaken in cars, while the majority of people used the subway, which accounted for 52 percent of all trips.

A comparative distribution of trips for residents of the area, according to means of transportation, is shown in Table 24.

In 1957 the total number of subway trips per day amounted to 20,895 as measured by the number of passengers leaving or entering the trains at the Vällingby station. In 1962 this figure had increased slightly to 21,387 trips, with the maximum hour accounting for 2,786.¹⁵

¹³ Stockholms Spårvägar, Resvanor i Stor-Stockholm 1958, Part I, op.cit., pp. 67-68.

¹⁴ 1961 Års Spårvägstaxekomite, Resvaneundersökningen i Stor-Stockholm 1961, op.cit., p. 196.

¹⁵ Stockholms Spårvägar, The Stockholm Underground Railway, op.cit., p. 38.

TABLE 24: PERCENTAGE DISTRIBUTION OF TRIPS ACCORDING
TO MEANS OF TRANSPORTATION, 1958 and 1961

Means of Transportation	1958 * percentage	1961** percentage
Subway	41 %	52 %
Cars	45	41
Others	14	7
TOTAL	100 %	100 %

Source: * - Stockholms Spårvägar, Resvanor i Stor-Stockholm 1958, Part II, Table 46.
 ** - 1961 Års Spårvägskommitte, Resvaneundersökningen i Stor-Stockholm 1961, Table 17, p. 157.

In 1961 an interpellation was raised in the City Council concerning the future capacity of the subway facilities at Räcksta, which were expected to become inadequate for the peak hour demand after the completion of Vattenfallsverket. In the responding statement it was stressed that it would be most desirable from an economic point of view to increase the morning traffic to Vällingby and the afternoon traffic from this area, as the main flow of traffic was in the opposite direction both in mornings and afternoons. No insufficiency in the subway capacity was foreseen.¹⁶ In 1964 the train frequency was one train (capacity 1,200 passengers) every twelve minutes during normal traffic load

¹⁶ Stadskollegiets Utlåtanden och Memorial,
Protokoll - interpellation M. Edner, May 15, 1961,
- svar H. Berglund, June 19, 1961,
Stockholm, 1961.

and one train every four to six minutes during peak hours to and from Vällingby.

Through the large-scale commuting a much closer relationship than anticipated has developed between Vällingby and other parts of Stockholm. Since most of the people who live in Vällingby work elsewhere in the city, there is in fact no great advantage in the achievement of the planned number of work-places within the area. The result is that Vällingby is more of a suburb than intended and less of a partly self-contained community than the plan had set forth.

CONCLUSION

With few exceptions, Vällingby has received international appreciation and admiration as a well-planned community. The following statement by E. J. Guerin exemplifies this general praise:

"The planning, design and realisation of Vällingby is a magnificent demonstration of the virtues of Stockholm's municipal land ownership, imaginative townplanning, and public enterprise. All the major decisions in the moulding of Vällingby have been demonstrably good ones: preservation and exploitation of a fine landscape; free planning; the maximum of open space; segregation of pedestrian and vehicular traffic; integrated rail transport, car parking and pedestrian shopping, complete cultural and entertainment facilities; one central plant for heat and power. The architecture itself is, perhaps, open to criticism: the basic concept is fine and its realisation exhilarating".¹

The only negative opinion registered has been voiced by Sigfried Giedion, professor of town planning and architecture, in a brief Swiss newspaper article.²

Is the international acclaim for Vällingby really justified? As an example of a planned community where the original physical layout plans have actually been implemented the answer is in the affirmative, but as an example of a comprehensively planned community, where the

¹ E. J. Guerin, "Vällingby", Architecture and Building, December 1958, p. 445.

² Neue Zürcher Zeitung, March 3, 1963.

human needs have received equal attention and been satisfactorily fulfilled, Vällingby no longer deserves the distinction of a "well-planned community".

The widespread dissatisfaction among the inhabitants with their accommodation, the tendency towards overcrowding, the unco-ordinated school planning and unsatisfactory solutions to educational space problems, and above all the large-scale commuting among Vällingby wage earners indicate that the new community has not really offered city dwellers a more desirable alternative to metropolitan living.

Vällingby and its many succeeding suburban communities have not diminished the housing shortage in Stockholm which had been the main reason for the densely built-up developments in the outskirts of the city. In the Stockholm of the mid-1960s it is even more difficult to find accommodation than a few years ago. The waiting list with the Municipal Housing Exchange Office has now increased five times, approaching 125,000 households that either lack accommodation (4 households out of 10) or want to exchange dwellings.

Naturally the planners alone are not responsible for all the aforementioned deficiencies. The housing shortage for example, particularly in cities, is a nation-wide problem affecting the whole country since the Second World War. National policy caused restrictions on new industrial

buildings which in turn caused early imbalance between work-places and residences, resulting in large-scale commuting. These unplanned changes have greatly modified Vällingby's role in the metropolitan structure.

The dissatisfaction with the housing situation and the unsatisfactory school provisions could probably have been foreseen and counteracted, had greater attention been paid to potential population structure and housing preferences. The original plans were not concerned with the people who would live in the new community and this is their greatest weakness. The insufficient consideration given to population indicates that the planners were more preoccupied with creating physically and architecturally pleasing surroundings than a suitable habitat for potential residents.

On the other hand, the community center has successfully filled the role as a district center as envisaged by the planners. Expansion beyond the original plans has already taken place to such a degree that the possibility of any further increases in commercial floor space seem rather restricted. This, together with limited parking space, may eventually become a serious problem, restricting commercial growth, but at this time the center is flourishing.

In most instances it has been impossible to discern the rationale behind the planning proposals, due to the lack of documented information on these aspects and the lack of

co-operation from the main planner. It is to be hoped that a study concerning decision-making during the planning process at Vällingby will prove more successful in providing information about these aspects.

There has been widespread confusion regarding the classification of the Vällingby development. Internationally it has often been referred to as a "new town" or a "satellite town", and the following statement of the present chief planner of Stockholm, Göran Sidenbladh, in a foreword to an article in the journal "Urbanistica" only adds to the confusion in this matter:

"... it has never been the intention to make Vällingby and the other suburban groups into actual self-supporting satellite towns. However, the term is perhaps the most suitable for use in an article written for international consumption".³ (underlining by writer.)

Vällingby was intended to be a partially self-contained community within Stockholm, but with the large commuting that exists, the place of the new development in the metropolitan region is more that of a suburb with a community center, functionally inseparable from the other metropolitan parts with respect to such urban functions as housing and employment.

³ G. Gentili, "The Satellite Towns of Stockholm", English translation of article in the journal Urbanistica, Nos. 24 - 25, 1958 - copy from Stockholms Stads Stadsbyggnadskontor, p. 1.

BIBLIOGRAPHY

- Ahlberg, C.F., "Die Planung Gross-Stockholms", Raumforschung und Raumordnung, Vol. 13, No. 2, 1955, pp. 93-97.
- _____, Shopping Centres and Satellite Towns in the Stockholm Region, paper presented at conference on Regional Planning and Retailing in Zürich, February, 1965, 9 pp.
- Aronson, A., Vällingby Centrum, Byggmästaren, A 4, 1956, pp. 77-79.
- Åsvärn, G., and Mathsson, B., Fritid i Förort, Stockholms Stad, Stockholm, 1957.
- Åsvärn, G., Servicestudier i Vällingbyområdet, Generalplaneberedningen, Stockholm, 1966, 62 pp.
- _____, Vällingby ABC Community, paper presented at Seminar on European New Towns, Stockholm, August, 1965.
- Bergquist, A.T., "The Planning of Shopping Centers", Byggnadsindustrin, No. 12, 1965, pp. 1075-1076.
- Bohman, B.G., Stadsplanering för Detaljhandeln i Stockholms Ytterområden, Handel och Näringsliv i Stockholm, Stockholm, 1948.
- Chapin, F.S., Urban Land Use Planning, Harper & Bros., New York, 1957, 397 pp.
- Dagens Nyheter, June 16, 1965.
- _____, March 1, 1967.
- Dahlström, E., Barnfamiljer i Höghus och Trevånings-Låghus i Vällingby, Statens Nämnd för Byggnadsforskning, Stockholm, 1957, 80 pp.
- _____, Trivsel i Söderort, Stockholm, 1951.
- Dakin, F., Thoughts on Theory-Method in the Planning Process, Plan Canada, Vol. 1, No. 3, Nov. 1960, pp. 133-143.
- Denis, J., "La Concentration Urbaine et ses Problèmes: Stockholm", Bulletin de la Société Belge d'Études Géographiques, Vol. 24, No. 1, 1955, pp. 117-144.

- Dergalin, I. and Stäck, J.M., "Generalplan för Rinkeby, Spanga Kyrka och Tensta", Särtryck ur Arkitektur, No.4, 1964, pp. 1-6.
- _____, "Planläggning av Järvaområdet", Särtryck ur S:t Eriks Arsbok, 1964, pp. 129-141.
- Diem, A., "An Alternative to Unplanned Growth; the Case of Stockholm", Canadian Geographer, Vol. 9, No. 4, 1965, pp. 193-204.
- Doxiadis, C.A., "The Future of Copenhagen; Considerations in the Abstracts", Arkitekten, No. 4, Feb., 1963, pp. 13-25.
- Fog, H., Den Fysiska Samhällsplaneringens Administrativa Struktur, Särtryck ur SOU 1965:54, Byggnadsforskningen, Rapport 32:65, Stockholm, 1966, 20 pp.
- Forbat, F., "Raumordnung and Landesplanung in Sweden", Raumforschung und Raumordnung, Vol. 13, No. 1, 1955, pp. 27-37.
- Forshaw, J.H. and Abercrombie, P., County of London Plan, Macmillan, London, 1943, 188 pp.
- Gentili, G., "The Satellite Towns of Stockholm", English translation of article in the journal Urbanistica, Nos. 24-25, 1958 - copy from Stockholms Stads Stadsbyggnadskontor, pp. 1-14.
- Guerin, E.J., "Vällingby", Architecture and Building, December, 1958, pp. 444-456.
- Hansen, V., "Some Characteristics of a Growing Suburban Region", Geografisk Tidskrift, Vol. 59, 1960, pp. 214-225.
- Hofsten, E. von, Demografiska Undersökningar av Stockholms Folkmängdstillväxt, Stockholms Stads Statistik X, Specialundersökningar Nr 22, Stockholm, 1941.
- Howard, E., Garden Cities of To-morrow. Faber and Faber Ltd., London, 1965, 168 pp.
- Kungliga Bostadsstyrelsen, Huvudstad, Hälsingborg, 1964, 52 pp.
- Kant, E., "Suburbanization, Urban Sprawl and Commutation", Migration in Sweden - A Symposium, 1957, pp. 244-309.

- Larsson, Y., "Building a City and a Metropolis", Journal of the American Institute of Planners, Vol. 28, No. 4, 1962, pp. 220-228.
- Larsson, Y., et al., Stockholm Regional and City Planning, Planning Commission of the City of Stockholm, Stockholm, 1964, p. 95.
- Laurell, E., and Hedenstierna, B., Stockholmstraktens Topografiska Huvuddrag, Ymer, Nos. 2-4, 1938, pp. 125-145.
- Lindman, G., Growing Space Needs in the Urbanized Region, paper presented at the IFMP Conference in Örebro, June 29, 1965, 18 pp. (mimeographed).
- Markelius, S., "Stockholms Struktur", Byggmästaren, 1956, A 3, pp. 49-76.
- _____, Vällingby Centrum, Architectural Design, October, 1956.
- _____, "Vällingby och den Aktuella Stockholmsplaneringen", S:t Eriks Årsbok, 1955, pp. 176-186.
- Neue Zürcher Zeitung. March 3, 1963. (article by S. Giedion)
- Persson, L., Kunderna i Vällingby, Stockholms Stad, (Stadskollegiets Utlåtanden och Memorial, Bihang 86/59) Stockholm, 1960, 384 pp.
- Richards, J.M., "Stockholm's New Commercial Centre", Ekistics, Vol. 13, No. 75, Jan. 1962, pp. 38-42.
- Spårvägskommitte, 1961 Års, Resvaneundersökningen i Stor-Stockholm 1961, Stadskollegiets Utlåtanden och Memorial, Nr 99/63, Stockholm 1964, 218 pp.
- Söder, T., Vällingby, Svenska Bostäder, Stockholm 1958, 6 pp.
- Stadskollegiets Utlåtanden och Memorial, Bihang 4/46, Stockholm 1946.
- _____, Motion 1/50, Stockholm 1950.
- _____, Utlåtande 382/50, Bilaga A och B, Stockholm 1950.
- _____, Utlåtande 110/52, Stockholm 1952.

- Stadskollegiets Utlåtanden och Memorial, Utlåtande 179/52,
Stockholm 1952.
- _____, Utlåtande 209/52,
Stockholm 1952.
- _____, Utlåtande 465/52,
Bilaga 38, Stockholm 1952.
- _____, Utlåtande 163/56,
Stockholm, 1956.
- _____, Bihang 87/58,
Stockholm 1958.
- _____, Bihang 96/58,
Stockholm 1958.
- _____, Bihang 87/59,
Stockholm 1959.
- _____, Utlåtande 94/59,
Stockholm 1959.
- _____, Utlåtande 150/59,
Stockholm 1959.
- _____, Utlåtande 277/59,
Stockholm 1959.
- _____, Utlåtande 213/60,
Stockholm 1960.
- _____,
Protokoll - interpellation M. Edner, May 15, 1961.
- Svar H. Berglund, June 19, 1961, Stockholm,
1961.
- _____, Bihang 14B/63,
Bilaga 2, Stockholm 1963.
- _____, Bihang 143/63,
(Nordin, S.E.), Stockholm 1963.
- _____, Utlåtande 234/63,
Stockholm 1963.
- _____, Bihang 51/65,
Planstandard 1965, Stockholm 1965, pp. 1-64.

Statens Järnvägsstyrelse, Förortstrafiken på SJ:s Järnvägs-
linjer inom Stockholmsområdet, Stockholm 1950.

Statens Offentliga Utredningar, Hemmen och Samhällsplaneringen,
Stockholm 1956, 151 pp.

Statistiska Centralbyrån, Folk-och Bostadsräkningen 1960,
Tables 1-9 (unpublished computer lists).

_____, Statistisk Årsbok för Sverige 1962,
Stockholm 1962, 487 pp.

Stein, C.S., Toward New Towns for America, M.I.T. Press,
Cambridge, Mass., 1966, 263 pp.

Stockholms Generalplaneberedning, Trafikledsplan för Stockholm,
Stockholms Stad, Stockholm 1960, 119 pp.

Stockholms Handelskammare, Swedish Shopping Centres, Stockholm,
1965, 37 pp.

Stockholms Regionalplanekontor, Regionplan för Stockholmstrakten,
Stockholms Stad, Stockholm, 1959.

_____, "Skiss 1966 till Regionplan för
Stockholmstrakten", Särtryck ur Arkitektur, No. 5,
1967, 43 pp.

Stockholms Spårvägar, Resvanor i Stor-Stockholm 1958, Part
I-II, Stockholms Stad, Stockholm 1961.
Part I - 85 pp; Part II - Tables 1-60.

_____, The Stockholm Underground Railway,
Stockholm, 1965, 39 pp.

Stockholms Stads Fastighetsnämnd, Räcksta Vällingby,
Stockholms Stad, Stockholm, 1952, 16 pp.

_____, Vällingby, Stockholm 1952,
28 pp.

_____, Vällingby - en Orientering
om Framtids-staden, Stockholm, 1952, 14 pp.

Stockholms Stads Stadsbyggnadskontor (Stadsplanekontor),
Beskrivning till Förslag till Ändring och Utvidning av
Generalplan för Södra Spånga, med Areal-och Befolk-
ningsuppgifter, Stockholm 1952, pp. 1-5, 1-3.

_____, Generalplan för
Stockholm 1952, Stockholms Stad, Stockholm, 1952, 472 pp.

_____, Stockholm, a Planned
City, Stockholms Stad, Stockholm, 1965, 15 pp.
(mimeographed).

Stockholms Stads Stadsbyggnadskontor (Stadsplanekontor),
 "Swedish Planning of Town Centers", Town Planning Exhibition,
Edmonton, May, 1965.

Stockholms Stads Stadsplanekontor, Archives, Stadsplaner:

Vällingby I,	6 April, 1950.
"	, 20 April, 1951.
Vällingby II,	6 April, 1951.
"	, 28 February, 1952.
"	, 27 March, 1953.
"	, 19 August, 1954.
"	, 11 October, 1957.
"	, 12 September, 1961.
"	, 21 March, 1962.
"	, 22 July, 1963.
Vällingby III,	5 May, 1950.
Vällingby IV,	14 September, 1950.
Vällingby V,	16 March, 1951.
"	, 9 November 1951.
Vällingby VI,	2 March, 1951.
Vällingby VII,	17 August, 1951.
"	, 28 November, 1955.
Vällingby VIII,	16 March, 1951.
"	, 30 May, 1953.
Vällingby in general,	26 March, 1952.
"	, 16 August, 1952.
"	, 5 September, 1952.
"	, 10 April, 1953.
"	, 18 June, 1953.
"	, 15 October, 1953.
"	, 18 February, 1954.
"	, 9 February, 1955.
"	, 7 July, 1955.
"	, 28 July, 1955.
"	, 29 June, 1956.
"	, 8 March, 1957.
"	, 20 August, 1957.
"	, 14 September, 1957.
"	, 20 March, 1958.
"	, 12 June, 1958.
"	, 31 October, 1958.
"	, 9 February, 1959.
"	, 16 August, 1962.
"	, 2 April, 1963.
"	, 18 September 1963.
Räcksta I,	5 January, 1950.
"	, 22 November, 1952.
"	, 21 October, 1954.
Räcksta II,	7 March, 1950.
"	, 22 June, 1950.

Räcksta III, 6 April, 1950.
 " , 6 November, 1950.
 Räcksta IV, 6 April, 1950.
 " , 20 October, 1950.
 Räcksta V, 21 April, 1950.
 " , 7 September, 1951.
 Räcksta in general, 23 May, 1952.
 " , 5 June, 1952.
 " , 9 September, 1958.
 " , 22 October, 1959.
 Grimsta I, 26 March, 1952.
 " , 20 February, 1953.
 " , 2 June, 1953.
 Grimsta II, 17 December, 1955.
 " , 28 March, 1956.
 Johannelund, 21 August, 1952.
 Vällingby roads, 8 May, 1952.
 " , 14 May, 1956.
 " , 6 November, 1956.
 (mimeographed)

Stockholms Stads Statistiska Kontor, "Bostäder och Hushåll
 i Stor-Stockholm", Stockholms Stads Statistik,
 Stockholm, 1961.

, "Bostadsbyggandet,
 Relativa Åldersfördelningen, Bostadsförhållanden,
 Mantalskrivna Folkmängden", Stockholms Stads
 Statistik, Statistical tables 1951-1964, Stockholm
 1952-1965.

, Måndsstatistik,
 "Åldersfördelningen", statistical tables 1952-1964,
 Stockholm, 1952-1964.

, Mantalskrivna Folkmängden
Kvartersvis inom Församlingar och Stadsdelar, Stockholms
 Stad, Stockholm 1960, 52 pp.

, Mantalskrivna Folkmängden
efter Kön, Ålder, och Civilstånd inom Församlingar,
Stadsdelar och Kvarter, m.m. i Stockholm, Stockholms
 Stad, Stockholm 1964, 111 pp.

, "Skolorna i Stockholm",
Stockholms Stads Statistik, December, 1947.

, Statistik Rörande
Stockholmsfamiljer, Stockholm Stads Statistik X,
 Specialundersökningar Nr 24, Bihang 8/47, Stockholm, 1947.

Svenska Bostäder, Archives, "Affärslokaler", Vällingby file, (mimeographed, n.d.).

_____, "Befintlig Bebyggelse och Nybebyggelse", Vällingby file, Stockholm, 1961. (mimeographed).

_____, "Köpkraftsberäkningar för Vällingby med Omnejd", Vällingby file, Vällingby, 1954. (mimeographed).

_____, "Parkeringsplatser invid Vällingby-Centrum", Vällingby file, Vällingby 17/6, 1965. (mimeographed).

_____, "Spekulanter på Affärslokaler", Vällingby file, Vällingby, 1952. (mimeographed).

_____, "Vällingby Centrum, Våningsyta", Vällingby file, Vällingby 1953. (mimeographed).

_____, Vällingby file, Vällingby 1954, (mimeographed).

_____, "Ytornas Fördelning i Shopping-centrum", Vällingby file, Vällingby, 1965. (mimeographed).

Svenska Bostäder, Bredäng - A Town of the Sixties, 4 pp. (mimeographed, n.d.).

_____, Skärholmen - Bilålderns Storcentrum, Stockholm, 1965, 3 pp. (mimeographed).

_____, The Growth of Vällingby, 6 pp. (mimeographed, n.d.).

_____, Vällingby, Stockholm, 1966, 28 pp.

_____, Vällingby Centrum, Stockholm, 1955, 16 pp.

Sveriges Köpmannaförbund, Butiken i Stadsplanen, Stockholm, 1950, 32 pp.

Vällingby - Västervy, summer 1956.

Västerort, November 4, 1964. (article by C.W. Carlsson)

Waller, E., "Vällingby et Farsta - essais de solution aux problèmes urbains de Stockholm", Revue de Géographie de Lyon. Vol. 38, No. 1, 1963, pp. 33-46.

William-Olsson, W., Stockholms Framtida Utveckling. Monografier Utgivna av Stockholms Kommunalförvaltning, Stockholm, 1941.

_____, Stockholm - Structure and Development, Almquist & Wiksell, Uppsala, 1961, 96 pp.

Winberg, I.P., "Några Befolkningsstatistiska Tal i Regional Belysning", Ymer, No. 2, 1961, pp. 105-127.

B29898